CROW-OMAHA MARITAL ALLIANCES AND SOCIAL TRANSFORMATIONS: ARCHAEOLOGICAL CASE STUDIES ON THE TAÍNO, HOHOKAM, AND ARCHAIC LOWER MISSISSIPPI VALLEY

By

BRADLEY E. ENSOR

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By

Bradley E. Ensor

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Major Department: Anthropology

Marital alliance theory provides general categories of kinship systems based on shared types of groups and marriage rules that are meaningful to political economy and social processes. Marriage alliance systems not only reproduce social structure but also regulate the exchange of people among groups; structure ceremonial organization, related surplus production, and exchange; and produce different forms of social ranking. The dissertation illustrates how a marital alliance perspective may explain political economies and social transformations in prehistory. The dissertation focuses on Crow-Omaha alliances and, to a lesser degree, on "complex" alliances.

Specific group composition, marital exchanges, ceremonial organization, surplus production, and exchange are structured by the Crow-Omaha marriage system. The Crow-Omaha marital system also is found to have an internal demographic process that leads to crises in group exogamy. Ceremonially prominent clans grow disproportionately large until there are not enough members in other clans with which to intermarry. Disproportionately large exogamous groups may fission or alter their marriage system, which may change social structure and political economy. Empirical data on nineteenth century marriages among the Omaha are used to confirm adherence to the Crow-Omaha marital alliance system and to document the internal social process leading to crises in exogamy.

An ethnographic survey of 62 Native North American societies is used to define archaeological correlates of Crow-Omaha and complex marital alliances. Using multiple lines of evidence, the Hohokam of south-central Arizona, the Archaic period cultures of the Lower Mississippi Valley, and the Taíno of the Greater Antilles are argued to have shared Crow-Omaha alliance systems and political economies. Each of these societies experienced the internal social process leading to disproportionate clan growth. The marital alliance perspective is used to explain dramatic social changes among the Hohokam, the emergence and disappearance of mound-building among early hunter-gatherer cultures in the Lower Mississippi Valley, and the development of chiefdoms among the Caribbean Taíno. All are argued to have experienced crises in exogamy but different responses to crises with different transformational outcomes are demonstrated.

CHAPTER 1
INTRODUCTION

Archaeologists are increasingly considering the importance of kinship and ceremony to describe prehistoric political economies and to explain social transformations. Lewis Henry Morgan (1870, 1965) was likely the first anthropologist to interpret kinship from archaeological data. Much later, archaeologists attempted to reconstruct descent through theorized indicators of postmarital residence (e.g., Ember 1973; Gibson 1973; Hill 1966; Longacre 1968; Peregrine 2001). However, those efforts were criticized for methodological problems and because marriage choices were difficult to predict in historically-altered societies (e.g., Allen and Richardson 1971; Schillaci and Stojanowski 2002). More recently, less specific reconstructions of kinship have been made. For example, some societies are simply referred to as having "corporate" kinship based on evidence for communal production and a lack of hierarchy expressed in dwellings (e.g., Earle 2001; Feinman et al. 2000; Renfrew 2001). Others emphasize the "political economy" of kinship (Keegan 1992a:94) whereby active players utilize kinship strategies to compete for and maintain power and prestige (Curet 1996; Curet and Oliver 1998; Keegan 1992b; Keegan and Maclachlan 1989; Keegan et al. 1998; Siegel 1999). Leví-Strauss' concept of "house" societies (1982, 1987) has most recently been used to interpret kinship in archaeological societies (e.g., Gillespie 2000a, 2000b, 2000c; Joyce and Gillespie 2000).

In this dissertation, I wish to entertain another approach for interpreting kinship with archaeological data. I use alliance theory, which originally formed a component of Leví-Strauss' (1969) structuralism, for modelling kinship and political economy. The marital alliance categories described here are shown to result in both predictable archaeological correlates in historical North American aboriginal societies (Chapter 3) and in predictable social processes. Crow-Omaha kinship and marital alliances, which were widespread throughout the Americas, are found to result in uniform social processes resulting in disproportionate clan sizes. Ultimately, this trajectory may lead to social crises and social transformations (Chapter 2). However, as described in the archaeological case studies (Chapters 4-6), I argue that the similar processes found in Crow-Omaha marital alliances resulted in different social transformations due to culturally specific determinants.

Political Economy and Alliance Theory

Political economy can be summarized as the social relations that structure production, exchange, consumption, and interaction within a given society. This paradigm assumes that a particular social form is historically derived from the social processes inherent in its antecedent social relations and in its relationships with other political economies. Specifically, contradictions in social relations propell a given society toward a condition in which change may come about. When analyzing class societies, the social contradictions are typically those involving the relationships between classes that ultimately drive a society toward a crisis in the overall system. However, in this dissertation, which emphasizes prestate societies lacking class divisions, I argue that the particular contradictions inherent in societies with Crow-Omaha kinship involves a demographic process leading toward conditions whereby the given society must transform to address a crisis.

Although often, and incorrectly, thought to be exclusively applicable to societies having exploitative class relations, political economic approaches to nonclass-based societies are common (e.g., Godelier 1978, 1984; Leacock 1978; Meillassoux 1972, 1981:16-32; Moore 1991; Wolf 1982:88-96). Kinship has regained attention in contemporary anthropology because kinship and marriage systems provide structure to the ways people produce, exchange, consume, and interact, (Arcand 1989; Peletz 1995; Rosman and Rubel 1971). Social organization and descent are interrelated with political and economic relations while marriage preferences and postmarital residence reproduce those social relations (e.g., Gjessing 1975; Godelier 1984; Morgan 1870; Moore 1991; Peletz 1995; Schweizer and White 1998; Wolf 1982:88-96). "Put simply, through kinship social labor is 'locked up,' or 'embedded,' in particular relations between people" (Wolf 1982:91). In contesting claims that kinship is irrelevant to understanding non-state societies, Peregrine (2001:44) states:

> To argue, as an anthropologist, that kinship is not important to understanding any given society is problematic; to suggest it is unimportant to understanding the organization of a non-state society is ridiculous. Kinship in all non-state societies structures social relations. It defines who a person is, who their leaders are, what resources they have access to, whom they may marry, where they may live, what occupations are available to them, and spiritual practices they will follow. Kinship influences, bounds, and shapes all aspects of life.

Marital alliance theory in kinship studies differs somewhat from descent theory. Descent theory emphasizes the relationships among generations of individuals. Alliance theory emphasizes the importance of marriage to social structure. Marriages are far more than the linking of individuals. They are the linking of groups, very often involving enormous payments by the groups (Fox 1967:232). Furthermore, in alliance systems where there is competition, groups compete for prestige during practically all forms of ceremonies (e.g., Rosman and Rubel 1971). Given the ways that groups are structurally interrelated through marriage, surplus production, and exchange, all of which reproduce a given social structure, the marital alliance system can be used to define the political economy of a society.

Although alliance theory was originally proposed by Lévi-Strauss (1969) alongside his structuralist theory, I use it for processual models rather than for structuralist interpretations. There are three main categories of marital alliances: elementary, Crow-Omaha, and complex. In delineating these categories, Lévi-Strauss (1969) noted patterns in marriage alliances that have implications for social organization and community patterns, which may be visible to archaeologists. In their study on Northwest Coast societies, Rosman and Rubel (1971) found that elementary and complex marital alliances predictably structured exchange patterns and other social factors in distinct ways. Following these leads, I began exploring the applicability of marital alliance models for archaeological interpretation.

Much of the discussion on marital alliances in this dissertation includes ceremony and surplus production. The relationship among prestige, ranking, marriage, ceremonial competition, and the associated production, acquisition, and exchange of symbolic artifacts, in addition to huge investments of labor into food preparation for the accompanying feasts, has long been recognized in anthropology (e.g., Mauss 1967 [originally published 1924]; Rosman and Rubel 1971; Spielmann 2002). Basically stated, competition among groups manifests in ceremonial exchanges of surplus product.

Therefore, there must be competition among groups for there to be large investments in surplus for ceremonial exchanges. The particular forms of competition and ceremonial exchanges reflect the particular forms of kinship, social structure, and marital alliances found in a given society (Rosman and Rubel 1971). Additionally, it is important to stress that marital alliances are not the determinants of kinship and political economy. Instead, marital alliances function to regulate and maintain kinship relations and social structure, which are integral to political economic behavior.

Crow-Omaha Kinship, Marital Alliances, and Social Transformations

In the wake of Schneider's (1984) critiques of descent theory and similar critiques from "relatedness" theory (e.g., Carsten 2000; Franklin and McKinnon 2001; Hutchinson 2000; Stafford 2000) and from "house" theory (e.g., Gillespie 2000a, 2000b ; Carsten and Hugh-Jones 1995), an argument based on normative accounts of kinship and marriage should be prefaced with some justification. The critics' normative statements that people rarely follow their culture's "rules" of kinship and marriage practices seemingly outweigh published empirical data to support those "rules." However, data on marriage behavior can be found supporting the argument that people did indeed conform to their cultural rules of marriage (e.g., Bahr 1983; De Oliviera and Salzano 1969:211; Hoebel 1979:411; Moore and Campbell 2002; White et al. 1990:177-178). To further support the Crow-Omaha alliance model at the heart of this dissertation, I analyze marriage behavior among the nineteenth century Omaha of Nebraska (Chapter 2). The results indicate that nearly all marriages conformed with the normative rules for the Omaha patrilineal variant of the Crow-Omaha model. In addition to those published data just cited that support normative accounts, the results of the Omaha study add greater confidence in using the Crow-Omaha marital alliance model for prehistoric populations not affected by the historic forces of depopulation and acculturation.

Also demonstrated in Chapter 2 is a tendency for disproportionate group sizes within Crow-Omaha societies, which has important implications on social change. There is a tendency for the more ceremonially prominent groups to be the largest due to their competitive success in attracting more alliances. The larger exogamous group may or may not be that of the society's chief(s) (if present); but rather that which has taken on more prominent ceremonial responsibilities for the society or that which has more successfully competed in common ceremonies. Marriages favoring the higher ranked groups play a large role in the disproportionate growth. Here, I describe this process in brief. In Chapter 2, I describe the process in more detail with supporting empirical data from the late nineteenth century Omaha of Nebraska who greatly adhered to their rules of clan exogamy.

In the patrilineal Omaha system, the prestigious clans attract prospective wives from other prestigious clans *and* from the less prestigious clans. The children of those marriages belong to the husband's clan. Women from both the prestigious clans *and* the less prestigious clans therefore contribute to the population growth of the prestigious patriclans. However, fewer women marry men of the less prestigious clans, resulting in little demographic growth (or even negative demographic growth) among the less prestigious patriclans.

In the matrilineal Crow system, the prestigious clans attract prospective husbands from *both* the prestigious clans *and* the less prestigious clans. The children of those marriages belong to the wife's clan. Therefore, the men from both prestigious *and* less prestigious clans contribute to the population growth of the prestigious matriclans. However, fewer men marry women of the less prestigious clans, resulting in little demographic growth (or even negative demographic growth) among the less prestigious matriclans.

As the more prestigious exogamous clans grow larger, they have greater capacities for surplus production (by more numerous members and by access to more abundant resources through those members) giving them an advantage in surplus production for staging ceremonies and in attracting more marital alliances than do other groups. The logical outcome of these tendencies is that a few exogamous clans grow disproportionately large in size over several generations and eventually lack enough members from outside their group to intermarry with. I refer to this as a "crisis in exogamy." To maintain exogamy under such circumstances, the larger groups must fission into smaller similar groups, begin intermarriage with new groups, or devise other strategies that may transform the society. Because clan social structure, ceremonial organization, and ranking are structured by Crow-Omaha social organization, a crisis in exogamy is essentially a crisis in the reproduction of the political economy. The importance of this model for disproportionate clan growth leading to crises in exogamy is that it provides a theoretical social trajectory leading to social crisis, consistent with political economic theory on social transformations.

The marital alliance categories are not presented as unilineal evolutionary stages. The process for dispropotionate clan growth is argued to apply only to societies with Crow or Omaha kinship and Crow-Omaha marital alliances. Because this dissertation focuses on the Crow-Omaha system, I do not develop a model for elementary or complex marital alliances. However, those systems should have different processes resulting in different crises. In a sense, this is similar to multilinear evolution in that different types of societies have different evolutionary consequences (Steward 1963). What differs from multilineal evolution is that the model I am presenting is not an evolutionary model.

Although I argue that there is a specific process in Crow-Omaha alliances leading to crises, the particular transformation in one culture may not be the same as in another. This perspective is similar to Marx's (1969) analysis of precapitalist modes of production whereby the social relations of production in each mode has a specific social proccss leading to a specific crisis, but distinct historical factors (interaction with neighboring societies, commerce, population, landownership, etc.) influence what new mode will develop from the crisis. Unlike evolutionary models, be they unilinear or multilinear, I do not suggest that the social trajectory toward crisis in Crow-Omaha alliance systems can predict the specific strategies taken by a society to address the crisis. Instead, I argue that the potential variation in strategies to address the same crisis may result in a number of particular transformations.

The three archaeological case studies were chosen precisely because I view each as having Crow-Omaha alliances that lead to disproportionate growth and crises in exogamy. Although the process within Crow-Omaha alliance systems is predictable, the three case studies also demonstrate three unique transformations in reaction to the same crises. I argue that the Hohokam transformation resulted in a shift to complex alliances, the Lower Mississippi Valley Archaic-Tchefuncte transformation resulted in group fissioning and a continuation of Crow-Omaha alliances, and the Taíno transformation resulted in social stratification. Despite sharing the same social crises, ecological differences among the three cultures are suspected to have contributed to the different transformations.

Archaeological Correlates of Kinship and Marital Alliance Systems

To apply the model on Crow-Omaha marital alliances, disproportionate growth, and social transformations to prehispanic cultures, archaeologists must first be able to identify the societies with Crow and Omaha kinship. This may appear as no small task given debate over the years on what constitutes archaeological evidence for kinship systems (e.g., Allen and Richardson 1971; Ember 1973; Gibson 1973; Hill 1966; Longacre 1968; Peregrine 2001, 2002; Schillaci and Stojanowski 2002). However, these debates focus on whether or not matrilineal descent/matrilocality and patrilineal descent/patrilocality can be recognized in the archaeological record.

The advantage of a marital alliance perspective over traditional descent-oriented approaches is that the Crow-Omaha alliance model does not require distinguishing between patrilineal and matrilineal descent, or between patrilocality and matrilocality. The complex alliance model does not require identifying whether a society practiced cognatic descent and bilateral descent, or between neolocality and bilocality. Although both the Crow-Omaha system and the complex system lump together many traditional categories of kinship into two general categories, all types of kinship within each category share patterns and processes. By shifting the focus from descent to marital alliances, archaeologists can more readily distinguish one generalized political economic system from another.

In Chapter 3 I argue that each alliance system has predictable patterns in community patterns, ceremonial organization, surplus production and exchange, ranking, and demography. Furthermore, each of these interrelated five themes is more readily observable in the archaeological record than is descent. For example, formal community patterns are found to correlate with Crow-Omaha marital alliances and informal community patterns are found to correlate with complex marital alliances in an ethnographic survey of Native North American cultures. Ceremonial organization is found to correspond to exogamous groups: large exogamous groups/settlements with Crow-Omaha alliances and individual families or wealthy leaders with complex alliances. Furthermore, ceremonial competition among exogamous intermarrying groups in Crow-Omaha societies involves a collectivization of surplus production for exchange to build marital alliances whereas wealthy leaders must provide and sponsor ceremonies in societies with complex alliances. The type of ranking also differs between the two alliance systems: Exogamous groups are ranked in ceremony and population size in Crow-Omaha alliances, which can lead to complex chiefdoms. Individuals are ranked through wealth in complex alliances but leaders can be replaced generationally (e.g., Ensor, in press). These correlations and the archaeological material evidence for each are described in Chapter 3.

The Hohokam

The Hohokam, who inhabited much of the Sonoran Desert region, form one of the major archaeological cultures of the Southwest. Definitions of Hohokam culture typically include shared artifact styles, the use of ballcourts, platform mounds, irrigation agriculture and widespread exchange systems. Irrigation agriculture was a major subsistence strategy practiced on river floodplains. Hohokam research typically includes environment, subsistence, and irrigation as explanations for cultural development and change. A major source of debate is the Late Formative period-Classic period transition.

The Late Formative period was a time of increased intersettlement interaction and population growth. Over 225 ballcourts were built throughout central and southern Arizona by the end of the Late Formative indicating an increase in the hosting of intersettlement collective public events as the context for marital alliances and exchange (Doyel 1991a:247; McGuire and Howard 1987:130; Wilcox and Sternberg 1983). Villages had planned circular, corporate layouts with open plazas (likely for hosting dances). Mortuary customs, especially those for individuals of high status, involved elaborate public cremation rituals, which also involved intersettlement interaction and planning (McGuire 1992a:48). At some sites, large ceremonial structures capable of housing many people were constructed (e.g., Wilcox et al. 1981:182). Some villages had areas with numerous pits interpreted to represent public ceremonies (e.g., Bostwick and Downum 1994:322; Haury 1976:155-156; Wilcox et al. 1981:145). Throughout the Late Formative period, the hosting of intersettlement events necessitated surplus labor for feasts, dances, and nonutilitarian artifact production and exchange. Even figurines represent ballgames (Wilcox and Sternberg 1983) and cremation rites (Thomas and King 1985) illustrating the importance of communal events that involved regional interaction.

Interaction among settlements and irrigation communities declined during the Late Formative-Classic period transition. With few exceptions, ballcourts ceased to be used at the end of the Sacaton phase. Alongside this gradual change was the shift away from circular, village planning with open central plazas (likely for hosting dances), cremation rituals that would have been public events, and an end to other public ceremonies. Because ballcourt-related events, feasts, and and other collective ceremonies were the contexts for intersettlement exchange and marital alliances, their abandonment has important implications for social relations.

In contrast to the interactive nature of Hohokam society in the Late Formative period, the transition into the Classic period witnessed the beginning of patterns suggesting irrigation network isolationism and interhousehold competition. By the early Classic, domestic compounds had their own ritual spaces surrounded by compound walls (Doyel 1991b:253; Sires 1987). The shift to inhumation burials, located adjacent or within compounds, demonstrates a shift from the elaborate public planning of cremations to compound-focused ritual. Furthermore, there was far more investment in mortuary assemblages at all compounds than in the Late Formative period illustrating competition among those domestic units. There are no indications of other public ceremonies. Even the platform mounds were surrounded by compounds (presumably elite residences), which were surrounded by large enclosing walls (e.g., Bostwick and Downum 1994:341-344; Crown 1991:151-152; Gregory 1987) for restricted access and privacy. Along with these shifts away from public interaction, Rice (1998) suggests that settlements within irrigation communities were competitive but that they formed alliances when competing with other irrigation communities. Van Keuren et al. (1997) show a decline in intersettlement exchange of pottery. Abbott (2000:170) also concludes through pottery analyses that there was less interaction among irrigation communities along the Salt River at the beginning of the Classic period. Many of the crafts that were widely circulated through intraregional exchange were no longer produced (Doyel 1991a:239) or were concentrated at platform mound sites (Bayman 1999:275). Local obsidian sources could no longer be relied upon, and there was a shift toward acquiring obsidian from long-distance sources

(Bayman and Shackley 1999). Possible evidence for conflict also correlates with this transition (e.g., Rice 2001; Wilcox and Haas 1994:231-232). There was increased elite control over craft specialization and exchange (McGuire and Howard 1987:137). Although canal system management was likely by elites in the Late Formative period, the Classic period distribution of platform mound sites along major canals implies increased elite control over water distribution (Dean 1987:260; Gregory 1987:209).

Many of the changes that began in the Sacaton phase and characterized the Soho phase of the Early Classic period can be viewed as a shift from a religious base to a secular base (Doyel 1976, 1980:36; 1991a:239), from public corporate ritual to ostentatious privatized ritual, and from interaction among irrigation systems to isolationism. Others argue the Classic period changes were a result of social ranking. However, others have argued for a lack of social ranking. Most recently, Waters and Ravesloot (2001) argue that the transition was a result of climatological instability and floods that caused river landscape changes. However, Ensor et al. (2003) argue that a mosaic of political ecological strategies already underway in the Late Formative in concert with environmental events more likely contributed to the landscape changes and differential social vulnerability to disasters.

The marital alliance perspective proposed here offers an alternative means for viewing the social changes apparent in the Late Formative-Classic period transition. The Late Formative period matches the archaeological correlates for Crow-Omaha kinship and marital alliances. Furthermore, the process of disproportionate growth among ceremonially prominent groups can be interpreted in phase-by-phase reconstructions of settlement histories. By contrast, the Classic period exhibits all the correlates of complex marital alliances. The changes are argued to be the result of relaxing rules of exogamy after reaching a crisis in exogamy.

The Archaic-Tchefuncte Periods of the Lower Mississippi Valley

Long-held beliefs about societies in the Archaic periods of the U.S. Southeast have been challenged by the gradual acceptance by archaeologists of Middle and Late Archaic period mounds and their apparent formal arrangements (Russo 1994a). Archaic mound sites in the Lower Mississippi Valley were originally described by Gagliano (1963:114). However, these contradicted the pervasive models for hunter-gatherers and early radiocarbon dates for mounds were either dismissed or generated skepticism (Russo 1994a:89). Although we now accept many of the dates that Archaic period mounds have yielded, their existence presents an enigma for interpreting their function and relevance to Archaic period societies. The post-Archaic archaeological, ethnographic, and historical records might suggest appropriate analogies for earlier societies with mound sites. However, there has been some reluctance to use the more familiar later societies as analogs--to do so challenges deeply rooted archaeological beliefs on subsistence, sedentism, and cultural complexity.

Despite ethnographic and historical evidence for sedentism and ranking among maritime societies along the Northwest Coast, the California coast, and Southwest Florida, cultural ecological perspectives were prevalent at the time the early dates for Middle Archaic mound sites were becoming accepted by archaeologists. Perspectives were therefore unprepared for the possibility of sedentism or semi-sendentism, beyond temporary base camps, among interior hunting and gathering peoples. Whether these interior mounds were accretional midden deposits or built for ceremonial purposes, they indicate some degree of locational permanence and investment beyond occasional base camp gatherings (e.g., Jackson 1981; Ramenofsky 1991). Furthermore, the increasing numbers and sizes of sites in the Middle Archaic may indicate population increases, which are usually expected for sedentary and agricultural societies. Additionally, the possibility that formal elliptical or semi-circular arrangements of mounds indicate ceremony and ranking, as among some post-Archaic and historical southeastern cultures, simply did not fit cultural ecological models for hunters and gatherers restrained by their subsistence practices. The theoretical legacy of ecological explanations for sedentism can still be found in recent discussions on whether or not local environments could have sustained sedentism in the Archaic (e.g., Gibson 1994:173-175; Jackson 1991).

Perhaps one of the most difficult possibilities for archaeologists to accept is the suggestion that formally planned mound settlements indicate some form of hierarchical ranking within Archaic period societies. Additionally, there may be a reluctance to accept the possibility that non-agricultural populations could even have ranking. However, the possibility for ranking in the Archaic periods is difficult to ignore when pointing out settlements with similar sizes and layouts in Amazonian and Caribbean chiefdom societies. Kidder (1991), Gibson (1973), and Webb (1982) conclude that there was a Late Archaic regional settlement hierarchy in the Lower Mississippi region, which would suggest ranking among settlements. If a regional settlement hierarchy is plausible for the Middle Archaic, would this mean that those societies were chiefdoms? Likewise, do the similar community patterns among ethnohistorical Amazonian and Caribbean chiefdoms indicate similar ranking in the Middle Archaic?

The Crow-Omaha alliance model is argued to explain the phenomena of these early formally arranged mound sites. In this perspective, the archaeological correlates and the demographic processes in the Archaic Lower Mississippi Valley are remarkably similar to the Taíno and Hohokam case studies. In Chapter 6, I argue that Crow-Omaha alliances and disproportionate growth among exogamous settlements led to cyclical crises in exogamy. However, unlike the Hohokam, these crises resulted in decisions by the large exogamous groups to fission and continue Crow-Omaha marital alliances, thereby repeating the cycle. Different ecological conditions are suggested to explain the different strategies taken by the Hohokam and these early Southeastern societies to resolve crises in exogamy and resource allocation.

The Taíno

The Taíno of the Greater Antilles are known to have formed regional complex chiefdoms. Recent theories on the development of Taíno chiefdoms share an elite agency model whereby emerging elites independently manipulate the larger society to enhance their status and power. In Chapter 6, I argue that the emphasis on elite strategies in this perspective is not supported by ethnographic testing, tends to ignore the larger political economies that structure elite agency, deemphasizes nonleaders' competition for status and resource security, and ignores the means by which kinship structures social hierarchy.

A descent model for Crow and Omaha kinship and social ranking, in conjuction with ethnohistoric observations and the archaeological correlates described in Chapter 3 for Crow-Omaha societies, supports others' claims that the Taíno had matrilineal Crow kinship. The marital alliance perspective is suggested to provide a political economic context for social hierarchy and chiefly strategies that is less developed in elite-focused models.

Diachronic archaeological data on settlement patterns and site size hierarchies on Puerto Rico demonstrate the archaeological expectations for disproportionate growth in Crow-Omaha marriage systems. As argued in the case study on the Lower Mississippi Valley, the data from Puerto Rico may indicate less successful attempts to attract marital alliances at some exogamous settlements, which may have resulted in clan population declines and eventual settlement abandonments. The founding of new settlements occurred during periods when disproportionate settlement growth was most marked, which may suggest fissioning from the larger, more ceremonially prominent clan settlements by junior lineages. Once fissioning had occurred, the newly formed clans would have been less highly ranked than the clans they departed from and with whom members maintain marriage alliances, which may have led to complex chiefdoms.

CHAPTER 2
MARITAL ALLIANCE SYSTEMS

This chapter focuses on the concept of marital alliances. Particular attention is given to the "Crow-Omaha" system, which is a critical component of this dissertation. There are three sections to the chapter. First, the three main categories of alliance systems are described. Second, due to recent skepticism over the accuracy of normative kinship rules the Crow-Omaha model is tested with actual data on nineteenth century marriages among the Omaha tribe of Nebraska (Ensor, in press a). This test supports the model for Crow-Omaha kinship and marital alliances. Third, the process leading to disproportionate demographic growth among clans in Crow-Omaha systems is documented among the nineteenth century Omaha (Ensor, in press b). The purpose of this second analysis is to illustrate the relationship among the marriage system, ceremony, and demography, which form a critical component of the model for social transformations.

Marital Alliances

Although alliance theory was originally proposed by Lévi-Strauss (1969) alongside his structuralist theory, I use it for processual models rather than for structuralist interpretations. There are three main categories of marital alliances: elementary, Crow-Omaha, and complex. In delineating these categories, Lévi-Strauss (1969) noted patterns in marriage alliances that have implications for social organization and community patterns, which may be visible to archaeologists (Chapter 3). In their study on Northwest Coast societies, Rosman and Rubel (1971) found that elementary and complex marital alliances predictably structured exchange patterns and other social factors in distinct ways. Following these leads, I began exploring the applicability of marital alliance models for archaeological interpretation.

The potential advantage of a marital alliance perspective over traditional descent-oriented approaches is that interrelated social structure, surplus production, ceremony, and exchange are more visible to archaeologists than is descent. The Crow-Omaha alliance model does not require distinguishing between patrilineal and matrilineal descent, or between patrilocality and matrilocality. The complex alliance model does not require identifying whether a society practiced cognatic descent and bilateral descent, or between neolocality and bilocality. Although both the Crow-Omaha system and the complex system lump together many traditional categories of kinship, all within each system share meaningful patterns and processes.

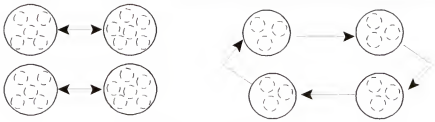
Elementary Alliances

Although occurring elsewhere, elementary alliances are most common in Southeast Asia, New Guinea, and Australia (Fox 1967:227). In elementary systems, exogamous groups exchange men or women with a specified second group (restricted exchange), or give sons or daughters to a second group while receiving sons and daughters from a third group (generalized) (Figure 2-1). In these systems, groups are linked together over many generations. Elementary alliances may function to ensure access to resources within the territorial range of all participating groups. Given the prescribed marriage pools there is little competition and therefore less emphasis on surplus production compared with Crow-Omaha and complex alliances. However, in large populations, elementary alliances may result in competition because there are numerous individuals within the larger prescribed marriage pools. Because elementary alliances do not form a crucial aspect of the present study I do not describe them here in detail.

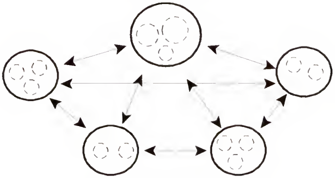
Crow-Omaha Alliances

"Crow-Omaha" alliance systems are most common in the Americas (Fox 1967:227). Lévi-Strauss (1969) used the normative descriptions of "Crow" and "Omaha" marriage rules to define an intermediary system between elementary and complex exchange systems. In "Crow-Omaha" exchanges, each individual must marry outside his or her exogamous clan (similar to elementary alliances) but there are no specified clans with which to intermarry (similar to complex alliances) (Figure 2-1). In the "Crow" matrilineal variant, individuals belong to their mother's clan, and cannot marry among their mother's clan, their father's clan, or their mother's father's clan. In the "Omaha" patrilineal variant, individuals belong to their father's clan, and may not marry among their father's clan, mother's clan, or father's mother's clan (Fox 1967:224). However, members of all other clans are potential spouses. An additional factor in the theorized "Crow-Omaha" marital exchange system is a prohibition against cross cousin marriages (Fox 1967:226). Fletcher and La Flesche (1992:135) only emphasize that the Omaha did not marry among their own clan (i.e., their father's clan).

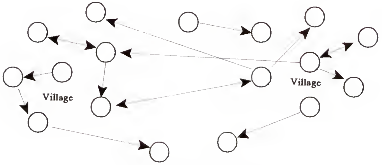
An important consideration in Crow-Omaha systems is that exogamous clans are typically comprised of multiple lineages (represented by nuclear families, extended families, or multiple extended families depending on the size of the lineage). However, no matter how important the lineages are in some acquired tribal functions, marriage is regulated by clan affiliation. Members of the lineages are expected to marry outside their clan. Men, in a Crow system, and women, in an Omaha system, remain members of their



Elementary Alliances



Crow-Omaha Alliances



Complex Alliances

Figure 2-1. Marital alliance systems. Solid-line circles represent exogamous units. Dashed-line circles represent lineages or extended families in Elementary and Crow-Omaha systems. Arrows indicate potential marital exchanges among exogamous groups.

clan of birth, which promotes close social ties between the two spouses' clans. Unlike elementary alliance systems, the alliances in a Crow-Omaha system may shift with each generation of marriages.

Complex Alliances

Although found in all world regions, complex marital alliances are most common among African and Indo-European societies (Fox 1967:227). Unlike elementary and Crow-Omaha strategies, there are no particular rules on exogamy or potential marriage pools other than a taboo on marrying consanguines (Figure 2-1). People are therefore distributed widely around the society (Fox 1967:227). This category can result in what descent theory recognizes as cognatic descent, bilateral descent, neolocal residence, and bilocal residence. "Genealogical amnesia" may even occur among individuals emphasizing opportunities over obligations towards parents and grandparents (Arcand 1989).

Complex alliances are found in "house" societies (Leví-Strauss 1982, 1987). Although some definitions have been provided for "houses" that could include every society in the world, I agree that the more simplistic views originally provided by Lévi-Strauss (1982:172-187, 1987:151-169) are more useful (Gillespie 2000c). In general terms, Lévi-Strauss' and others' notion of a "house" include a social unit ranging in scale, perpetuation of the "house" across generations for maintaining the estate, and negotiated membership for access to the estate through both multilateral descent and affinal ties (eg., Gillespie 2000a, 2000c). I specifically use the Yurok as a model for house societies. Among them, "houses" were extended families that competes with other houses. However, each "house" functioned as an estate that transcending generations. Membership was accessed through residence affiliation, which could be negotiated. In "house societies" individuals often use those multiple relations to relocate to other households, making household and settlement membership fluid (Rosman and Rubel 1971: 194-196).

Omaha Adherence to "Omaha Marriage Rules"

A trend among some anthropologists is to claim that classificatory kinship models are theoretical constructs imposed upon cultures by Euro-American ethnographers or that the models are normative descriptions of cultural "ideals" rarely practiced. Schneider (1984) critiques several preconceived assumptions on kinship that influence ethnographers' interpretations. One of Schneider's main criticisms is the assumption that non-Western cultures conceptualize biological relations in the same way as Western cultures, which he claims is the basis for descent theory (Carsten 2000; Franklin and McKinnon 2001; Schneider 1984). The realization that biological affinity is not conceptualized, operationalized, or even important to social life from one culture to another has given way to studies on "relatedness" in an effort to "reinvent" understandings of kinship (e.g., Carsten 2000; Franklin and McKinnon 2001). These studies emphasize multiple ways that individuals relate to one-another: through descent relations, affinal relations, friendship relations, political relations, and economic relations (e.g., Hutchinson 2000; Stafford 2000). Relations are thus seen as actively manipulated and reconceptualized within changing cultural contexts.

Another manner in which anthropologists are beginning to understand relatedness is through "house" theory. Although Leví-Strauss (1982, 1987) originally thought of his proposed "house" societies as one category alongside descent categories, more recent proponents of "house" theory tend to argue that people's relations rarely conform to the descent models (e.g., Gillespie 2000a; Carsten and Hugh-Jones 1995). Gillespie (2000b:1) summarizes this view in her opening paragraph: "ethnographic descriptions have dispelled the notion that prescriptive and proscriptive kinship 'rules' govern social life."

Schneider (1984) also claimed that an illogical separation of biological relations from political and economic relations characterized much of kinship theory prior to the 1970s. However, there is a tradition in anthropology for viewing a relationship between these inseparable "parts." Social organization, and hence descent, are interrelated with political and economic relations while marriage preferences and postmarital residence reproduce those social relations (e.g., Gjessing 1975; Godelier 1984; Morgan 1870; Moore 1991; Peletz 1995; Schweizer and White 1998; Wolf 1982:88-96). If we accept this premise, which seems to be the direction the "reinvented" (e.g., Carsten 2000) understanding of kinship is joining, then in a modern era of intensified incorporation in global capitalism we should expect changes in the ways people understand their "relatedness." However, we should not conclude that modern changing cultures reflect those of their nineteenth century and earlier descendent cultures, which much of descent theory was based upon. With the exception of Leví-Strauss' (1982, 1987) "house" societies that were based on ethnohistorical documentation, many ethnographies purported to contradict descent theory are in fact post-World War II. If descent theory is not valid for the societies ethnographers confront today, was it a valid construct for ethnohistoric and prehistoric societies?

This section seeks to address this question with an empirical analysis of ethnohistoric Omaha kinship and marriage. To distinguish between the Omaha people and the cross-cultural "Omaha" kinship type, the latter is placed within quotation marks. The

Omaha were selected for five reasons. First, Crow-Omaha kinship and marital alliances form a critical theoretical component of the dissertation. Second, normative descriptions of Omaha kinship were used to define the "Omaha" kinship type, which is a major paradigm for understanding patrilineal kinship and a marital exchange system. In light of the growing concerns over descent theory, and given the importance of the normative descriptions in defining a cross-cultural "Omaha type," an empirical evaluation of the degree to which the actual Omaha followed their kinship rules is warranted. Confirming that the Omaha did indeed act in accordance with their kinship rules can provide confidence in the "Omaha" model. Third, data collected from Bureau of Indian Affairs 1886-1902 censuses used in conjunction with individuals' names listed by clan (Fletcher and LaFlesche 1992:52-66, originally published 1905-1906) from the 1880s provide an opportunity to empirically examine Omaha adherence to the normative marriage and postmarital residence rules. Fourth, despite epidemics, the Omaha population was large enough and stable enough not to expect deviations from kinship rules brought about by demographic collapses (e.g., Haviland 1970b, 1973). Fifth, Barnes (1984:186-193) provides empirical data on pre-1883 Omaha marriages using unpublished genealogies and allotment papers that, when reorganized by clan, are used here to complement the census data and add greater historical depth to the analysis.

In addition to testing Omaha adherence to "Omaha" marriage and postmarital residence rules, I indirectly test for patrilineal descent based on the residence location of children of widows and divorced women. I first describe the kinship rules and expectations. The BIA census rolls and methods used in the study are then presented, followed by the results and a discussion on the significance of the findings toward theories on kinship.

Normative Omaha Social Structure and Marriage Rules

The normative descriptions are based on Fletcher and La Flesche's (1992) Bureau of American Ethnology report (originally published 1905-1906). That monograph contained detailed accounts of Omaha social organization, personal names listed by clan and subclan lineage, and other observations.

The Omaha had two "grand divisions" (moieties) representing the Sky/masculinity (*Ishta'çuda*) and the Earth/femininity (*Ho'gashenu*) (Flecher and La Flesche 1992:135). Each moiety had a chief. The ceremonial duties of the moieties reflected the engendered division of labor in daily life. Women were responsible for the "conservation of life": collecting firewood, care of the garden, food collecting, cooking, making of clothes, processing skins, and authority over children. Accordingly, the property and welfare of the tribe (hunting of buffalo, planting of maize, protection of crops from birds, and fostering help from winds and rains) were entrusted to the *Ho'gashenu* in ceremony (the *We'zhi*^{n}*shte* clan led this). Men were responsible for the warfare, hunting, making of stone and wood artifacts, the heavy work in clearing fields, and all rituals including the tattooing. Consequently, the supernatural arena was entrusted to the *Ishta'çuda* moiety to assist the *Ho'gashenu* moiety in their responsibilities. On summer hunting trips the *Ishta'çuda* and *Ho'gashenu* moieties would be situated on opposite sides of the circular camp (the *hu'thuga*). During ceremonies the opening in the circle would be situated to the east; but during nonceremonial occasions, the camp entry would face the direction travelled. Either way the spatial division would remain the same (Flecher and La Flesche 1992:137-138).

Despite their importance in ceremony, there were no marriage rules associated with the moieties.

Fathers regulated marital affairs and descent was soley through the father (Flecher and La Flesche 1992:139). Marriage often involved individual choices sanctioned by parents. When a marriage was arranged by a girl's parents, it was with a mature, established man who paid brideprice (Flecher and La Flesche 1992:325). Most marriages were said to be monogamous. Marriage was stable, yet divorce was possible (Flecher and La Flesche 1992:326).

Fletcher and La Flesche describe 10 exogamous "gens" (patriclans). The people within each clan did not have a common ancestor but had a share in title descended from the father (Flecher and La Flesche 1992:195). The larger clans had multiple "subclans." Each subclan was a lineage of extended families patrilineally related through a common "father" (Flecher and La Flesche 1992:137). Despite the presence of lineages and moieties, Fletcher and La Flesche (1992) repeatedly claim that marriages were clan exogamous.

Lévi-Strauss (1969) used the normative descriptions of "Crow" and "Omaha" marriage rules to define an intermediary system between elementary and complex exchange systems. In "Crow-Omaha" exchanges, each individual must marry outside his or her exogamous clan (similar to elementary alliances) but there are no specified clans with which to intermarry (similar to complex alliances). In the "Crow" matrilineal variant, individuals belong to their mother's clan, and cannot marry among their mother's clan, their father's clan, or their mother's father's clan. In the "Omaha" patrilineal variant, individuals belong to their father's clan, and may not marry among their father's clan, mother's clan, or father's mother's clan (Fox 1967:224). However, members of all other clans are potential spouses. Fletcher and La Flesche (1992:135) only emphasize that the Omaha did not marry among their own clan (i.e., their father's clan).

An additional factor in the theorized "Crow-Omaha" marital exchange system is a prohibition against cross cousin marriages (Fox 1967:226). Barnes (1984) used unpublished genealogical and allotment information to test for directional exchanges among subclan lineages and for cousin marriages among the pre-1883 Omaha. Barnes (1984:187-193) found that there was repetition of marriages among several subclan lineages but that few involved known geneaological relations between the spouses. However, Barnes (1984) set out to test Dorsey's (1884) descriptions of Omaha marital prohibitions that emphasize genealogical relatedness from the individual's perspective and therefore focused on marriages among subclan lineages. Here, I test the normative expectations for clan exogamy, which Fletcher and La Flesche (1992:135, 195, 325, 641) repeatedly assert was the primary marriage rule. I use Barnes' (1984:Table 17) data on subclan lineage marriages below to examine marriages at the clan scale for the pre-1883 period. However, marriages from the 1886, 1894, and 1902 censuses form the bulk of the data in the analyses. Unfortunately, the censuses used here do not provide enough historical depth to consider the "Omaha" type prohibition against marrying members of father's mother's clan. However, there is enough data to test "Omaha" type prohibition against marrying members of the mother's clan. In testing the validity of "Omaha" marital alliances, we would expect to find that the majority of marriages involved clan exogamy, avoidance of mothers' clans, and that clans had marital alliances with multiple clans.

Potential Sources of Historical Change

The Omaha established trade relations with the French and Spanish in the eighteenth century, which increased polygyny as a response to new forms of wealth (Liberty et al. 2001:399). Traders aided favored chiefs and internal factions developed among chiefs in the latter part of that century (Fletcher and La Flesche 1992:82-83; Liberty et al. 2001:400). The Omaha moved into the Bellevue, Nebraska area, in part driven by Sioux attacks in the 1820s-1840s (Fletcher and LaFlesche 1992; Smith 1974:218-219). The reservation was formed around the Indian Agency there. Allotment was carried out in the 1880s, which forced the Omaha to live in European-style nuclear families (each with its own allotment) (Fletcher and LaFlesche 1992:634-641). Despite efforts to discourage polygyny, this practice continued. Tribal political leadership was no longer inherited but based on competition through gift-giving to chiefs for election candidacy (Fletcher and LaFlesche 1992:202-203).

In addition to these structural changes that may have influenced social structure and marriage choices, occasional population loss may have influenced the demography of marriage pools resulting in deviations from marriage preferences. There was a smallpox epidemic in 1780-1781 (O'shea and Ludwickson 1992) and another in 1800-1801 (Liberty et al. 2001:400). Raids by Sioux were said to have taken large tolls on the Omaha in the 1820s-1840s (Smith 1974:218-219). A measles outbreak occurred in the summer of 1888 and Jesse F. Warren (1888), the Commissioner of Indians Affairs who describes the outbreak, attributed most of the 87 deaths in that year to the epidemic. According to that account, the outbreak occurred first at the Mission school, which was quarantined, and later at the boarding school on June 1, 1888. Warren complained that the children were not quarantined at the boarding school because there was "no police force there and parents take their children at will." Despite potential internal demographic problems caused by these events, the total population for the tribe seems to have remained relatively stable during the period of investigation. O'shea and Ludwickson (1992) estimate the Omaha population to have been around 1100 people in 1871-1872. The total populations recorded for 1886, 1894, and 1902 censuses described below were 1145, 1170, and 1218, respectively.

Methods and the Bureau of Indian Affairs Census Rolls: 1886, 1894, and 1902

The analyses of BIA census rolls for empirical data on kinship followed the methods of Moore (1980). The 1886 census was the earliest and was collected by Alice Fletcher (according to C.H. Potter--the Indian Agent assigned to the Omaha--in a foreword to the census) suggesting familiarity with the people and their Omaha names and relations. The 1894 and 1902 census rolls were selected to allow observation of a large sample of marriages since 1886 and since 1894, respectively. Captain W.H. Beck collected the 1894 data. The collector of the 1902 census is not recorded. All three census rolls were handwritten. Families occurred in the same order in all three censuses. However, the family members did not have the same serial number in the three censuses due to newly established families, deaths, births, and movements upon marriage.

The three census rolls included Omaha personal names, English given names and surnames, family relationships, and ages. The 1894 and 1902 census rolls included the sex of all persons enumerated ("male" or "female"). The 1886 census did not include sex, with the exception of individuals living by themselves. For all nuclear families, husbands were listed first. Wives were listed second as either "wife," "plural wife," or "second wife." Children or unmarried adults were listed as "son" or "daughter." Stepchildren were listed as "stepdaughter" or "stepson." Unmarried parents were listed as "mother" or "father." Orphans were identified as such. Persons living alone were given the descriptor "BHS," meaning "by herself" or "by himself." Extended family relations were not described in the enumerations. However, extended families often could be identified by contiguity of nuclear families known to be related on the census rolls.

New marriages and postmarital residence were identified by locating each individual from census to census (nominal linkage). The census rolls were entered into a spreadsheet, which facilitated sorting to match individuals' Omaha names among the three rolls to track marriages and moves. The Omaha names recorded on the census rolls were not written accurately by phonetic standards, but were written similarly in each census and were easily matched. In the few cases where Omaha names could not confidently be matched, the given English names (where present) and ages provided an alternative source for tracking individuals. New marriages were indicated by sons or daughters of different families appearing next to each other on subsequent censuses, with the women identified as "wives."

Clan affiliation was recorded to assess the degree to which the Omaha actually practiced clan exogamy. Fletcher and LaFlesche (1992:52-66) provided valuable lists of Omaha names, phonetically transcribed, in their descriptions of each clan and internal lineage. Children's names were inherited through the father (Flecher and La Flesche 1992:140). Given personal names were bestowed on children during an initiation rite. The names were kept into adulthood but some might take another name commemorating a dream, deed, or event, or a name bestowed on them. All women's names were kept without changing. Because men's names were either clan-associated or personalized, the name lists provided the opportunity to match them with the names recorded on the census rolls. The name lists were therefore entered into a separate spreadsheet for sorting, which facilitated the identification of mens' clan affiliations on the census rolls. In some cases, the enumerator recorded the English translation of the Omaha name, which also could be matched to the English translations provided by Fletcher and LaFlesche (1992:52-66). Because there were few names being shared by many women, it was not possible to identify the clan affiliation for many women on the 1886 census roll. Nevertheless, several women's clan affiliations were identified in the 1886 census by their Omaha names in the lists provided by Fletcher and LaFlesche (1992:52-66). The clan affiliations of all children appearing on the 1886 roll could be identified through their father's clan affiliation, which enabled an analysis of clan exogamy when appearing as married in subsequent censuses.

Postmarital residence was identified by seeing which spouse moved, and by the location of the newly formed family, on the census rolls. Newly married couples and children, if they had them, were identified as patrilocal if listed within two families from the husband's parents (or within two families of the married brothers if the husband's parents had passed away). New marriages were listed as matrilocal if the new family was listed within two families from the wife's parents. Couples were considered to have opted for neolocality when they were listed more than three families from either set of parents.

Because property and titles were not listed along with the enumerated individuals, inheritance could not be directly observed. Similarly, there was no direct means to confirm patrilineal descent. Patrilocality can be considered one indication for patrilineal descent. However, children's locations following a divorce or death of spouse also are used as a proxy for analyzing descent. This assumes that children "belonging" to a group through descent would have remained with that group whether the surviving mother or divorced mother remained with them or not.

Clan Exogamy

All 360 of the pre-1883 marriages presented by Barnes (1984:Table 17) were clan exogamous (Table 2-1). There were a total of 317 married couples in the combined 1886, 1894, and 1902 censuses. The clan affiliations of both spouses were identified in 169 marriages, comprising a sample of 53 percent of all marriages. Table 2-2 presents the numbers of marriages involving clan exogamy and clan endogamy within that sample. These data demonstrate that 96 percent of the marriages were clan exogamous. Therefore, it can be stated with confidence that clan social organization did regulate marriage. It should be noted that the few cases of clan endogamy tended to occurr within the largest clans and all cases of clan endogamy occurred in the 1894 and 1902 censuses, indicating that this did not occur prior to 1886. Table 2-2 also lists the number of clans with which each clan intermarried. Those data demonstrate that the members of the exogamous clans collectively had alliances with multiple clans.

The data presented in Table 2-3 evaluates the degree to which the Omaha adhered to the "Omaha" type prohibition against marrying members of one's mother's clan. Given that both parents of one or both spouses were required for this analysis, the resulting sample is small. Nevertheless, the table demonstrates that 93 percent of all individuals within this sample married spouses of clans different from their mother's clans. The very high percentages of clan exogamy, clan alliances with multiple clans, and high percentage of individuals not marrying with members of their mothers’ clans strongly support the type model for “Omaha” marital alliances.

Table 2-1. Omaha marriages by clan, pre-1883.

Clan	Clan Exogamous Marriages	Clan Endogamous Marriages	Total	n clans*
We’zhi^{n}shte	21 (100%)	0	21	5
I^{n}ke’çabe	44 (100%)	0	44	6
Ho^n’ga	23 (100%)	0	23	8
Tha’tada	91 (100%)	0	91	9
Ko^{n}çe	23 (100%)	0	23	8
Mo^{n}thi^{n}kagaxe	12 (100%)	0	12	5
Teçi^n’de	23 (100%)	0	23	8
Tapa’	44 (100%)	0	44	8
I^{n}gthe’zhide	18 (100%)	0	18	7
I^{n}shta’çu^{n}da	61 (100%)	0	61	6
Total	360 (100%)	0	360	-

* The number of external clans involved in marriages. Compiled from Barnes (1984:Table 17).

Postmarital Residence

Table 2-4 shows the postmarital residence data for first marriages (the first time both spouses were married) and for second marriages (when one or both spouses remarried after divorce or the death of a previous spouse). Among the first marriages, 72 percent had patrilocal postmarital residence. Among the second marriages, 53 percent were patrilocal. There are several observable reasons why the remainder of new couples deviated from the patrilocal preference.

Table 2-2. Omaha marriages by clan, 1886-1902.

Clan	Clan Exogamous Marriages	Clan Endogamous Marriages	Total	n clans*
We’zhi^{n}*shte*	11 (92%)	1 (8%)	12	5
I^{n}*ke’çabe*	35 (97%)	1 (3%)	36	8
Ho^{n}*’ga*	19 (100%)	0	19	8
Tha’tada	24 (96%)	1 (4%)	25	9
Ko^{n}*çe*	2 (100%)	0	2	2
Mo^{n}*thi*^{n}*kagaxe*	8 (89%)	1 (11%)	9	5
Teçi^{n}*’de*	16 (89%)	2 (11%)	18	6
Tapa’	22 (96%)	1 (4%)	23	7
I^{n}*gthe’zhide*	3 (100%)	0	3	1
I^{n}*shta’çu*^{n}*da*	22 (100%)	0	22	7
Total	162 (96%)	7 (4%)	169	-

* The number of external clans involved in marriages. The table includes only marriages where both husband’s and wife’s clan were identified.

Table 2-3. Adherence to prohibition against marrying members of mother’s clan, 1886-1902.

	Marriages not with members of Mother’s clan		Marriages with members of Mother’s clan		
	husbands	wives	husbands	wives	Total
First marriages	18 (50%)	16 (44%)	1 (3%)	1 (3%)	36
Second marriages	1 (17%)	4 (67%)	0	1 (17%)	6
Total	19 (45%)	20 (48%)	1 (2%)	2 (5%)	42

The table includes only marriages with clans identified for both parents of each spouse. The table excludes cases of clan exogamy.

Table 2-4. Omaha postmarital residence among marriages, 1886-1902.

	Patrilocal	Matrilocal	Neolocal	Deceased husband's paternal kin	Total
First marriages	59 (72%)	10 (12%)	13 (16%)	0	82
Second marriages	23 (53%)	2 (5%)	16 (37%)	2 (5%)	43
Total	82 (66%)	12 (10%)	29 (23%)	2 (2%)	125

The table includes only marriages where spouses' premarital residence and postmarital residence was identified. The table excludes polygynous unions.

The next largest category of postmarital residence was neolocality. Among the 29 couples whom established new residences, nine involved establishing residences where the husbands previously had no adjacent paternal kin. This may suggest that these husbands' remained in their father's house before marriage but that their fathers were deceased prior to the 1886 census and they had no brothers. Six of the marriages classified as neolocal lived near to the husband's father, but more than two families from him, which may approximate patrilocality. Two of the second marriages with neolocality involved husbands having been divorced and wives having been widowed. Six of the neolocal second marriages involved bringing the divorced wife's children to the new location, rather than joining the wife and her children at the divorced husband's location. Speculatively, neolocality may have provided a solution for avoiding conflicts in these circumstances. In summary, 23 of the 29 cases of neolocality involved special circumstances that likely motivated deviation from patrilocality.

Among the 10 cases of matrilocality in first marriages, seven involved marriages during the 1886-1894 period. All seven of those couples remained contiguous to the wife's mother's house in 1902, which discounts brideservice as an explanation for matrilocality (unless all seven involved 16 years of brideservice). Included with the 10 cases of matrilocality among first marriages, one involved a situation where both spouses' families were relatively close to one another. One case involved a situation where the husband's family had moved from their prior residence. Two cases of matrilocality involved husbands who lived alone before the marriage. Two cases involved the disintegration of the husband's natal family through the death of the husband's parents and postmarital moving out by siblings. One case involved a husband who resided with nonpaternal kin prior to marriage, perhaps having been orphaned. Not having descent-rights with the family that raised him may have motivated him to move to his wife's parents location. Therefore, although bride service was ruled out, most of the cases of matrilocality involved unusual circumstances. Only three cases of matrilocality during first marriages are unexplained by having no special circumstances observable. In summary, with the exception of these unusual circumstances, there was a strong tendency for patrilocality, which supports the normative descriptions.

Children of Widows and Divorced Women

In addition to patrilocal residence, children's locations after a divorce or death of a spouse are used here as indirect indicators of descent (i.e., belonging to the father's paternal kin). This assumes that children "belonging" to a group through patrilineal descent would have remained with that group whether the surviving mother or divorced mother remained with them or not. There were 17 cases of widowers having children and in all cases the children remained with the father. The 50 cases in Table 2-5 comprise 100 percent of all divorced women and widows having children. The table shows the locations of children of widows and divorced women, in addition to the women themselves. Among the widows, 62 percent did not remarry but remained with their children among the deceased husband's kin. Three widows married a brother of their deceased husbands under the levirate, and thus both she and her children remained within the extended family. There were two cases of widows remarrying men who moved in with them at the location of the deceased husband's kin, thus keeping the children within the paternal kin group. In both cases, the new husbands were not members of the deceased husband's clan. There was only one case where the widow moved out, leaving her children with the deceased husband's kin. In total, 77 percent of children of widows remained with the deceased husband's kin, which further suggests patrilineal descent for the children. However, 23 percent of widows brought their children to their new husband's locations.

Among the divorced women, over half remarried and moved away but their children remained with their former husbands. Two remained single and moved, leaving their children with their former husbands. One divorced woman remained single and continued to reside with her children adjacent to her former husband. One remarried and brought her new husband to reside with her children adjacent to her former husband. Only one divorced woman moved her children to her new husband's residence. In 91 percent of the divorces, the children of the divorced women remained with the former husband, whether the women themselves remained or not, which is expected with patrilineal descent. The combined totals of both widows and divorced women whose children remained with the deceased husband's kin (80 percent) do suggest an emphasis on patrilineal descent among the Omaha.

In summary, all marriages prior to 1883 were clan exogamous. After 1885, 96 percent of marriages involved clan exogamy. Most individuals (93 percent) avoided marriage with members of their mothers' clans. Each clan had marital alliances with multiple clans indicating no specified marriage pools other than avoidance of one's father's and mother's clans. The seven cases of marriages involving clan endogamy occurred after 1886. Most of the first marriages (72 percent) involved patrilocal postmarital residence. Just over half of the second marriages involved patrilocality. There was also a strong tendency (80 percent) for the children of both divorced and widowed women to remain among the father or his paternal kin, signifying patrilineal affiliation of children.

Table 2-5. Residence location of children of widows and divorced women, 1886-1902.

	She and children with husband's kin		Only children with husband's kin		She and children with new husband	total
	single	remarried	single	remarried		
Widows	24 (62%)	5* (13%)	1 (3%)	0	9 (23%)	39
Divorced	1 (9%)	1 (9%)	2 (18%)	6 (55%)	1 (9%)	11
Total	25 (50%)	6 (12%)	3 (6%)	6 (12%)	10 (20%)	50

The table includes only widows and divorced women having children.
* Includes 3 cases of the levirate.

Discussion

The results of the analyses in this section indicate that despite allotment policies, epidemics, and pressures to acculturate, in actual behavior the majority of the late nineteenth century Omaha conformed to their preferences for clan exogamy and avoidance of marriage with members of mothers' clans. The "Omaha" type marital alliance system is therefore supported by the results. There was a strong adherence to patrilocality. The residence locations of children of divorced and widowed parents also suggest an emphasis on patrilineal descent. These lines of empirical data supporting the normative descriptions for the Omaha and the rules in the "Omaha" kinship type indicate that both are accurate. I suggest that the stability in total population size, in addition to possible resistance to acculturation, enabled the Omaha to continue following their marriage preferences within the period of study.

The empirical data do not suggest that the normative descriptions were simply "ideals" or theoretical constructs imposed upon them by ethnographers. Furthermore, the high percentage of clan exogamy, high percentage of patrilocality, and the locations of children of divorced or widowed mothers indicate that daily social interaction was indeed regulated by the social structure inherent in Omaha kinship. The broader relevance of these results is that the "Omaha" kinship model and marriage alliance model is indeed an accurate depiction of the Omaha. How closely other societies said to share the "Omaha" kinship type followed those rules awaits similar empirical analyses.

The critiques of descent theory described at the outset of this section have been disconfirmed in the case of the late nineteenth century Omaha. Similarly, Moore and Campbell (2002) demonstrate that the majority of historic Plains Cree and Mvskoke Creek Indians did indeed follow their respective normative systems of exogamy. One also finds, on rare occasions, quantified data on marriages or inheritance (e.g., Bahr 1983; De Oliviera and Salzano 1969:211; Hoebel 1979:411; White et al. 1990:177-178) that often support the normative kinship rules for the respective cultures. Normative descriptions of changing trends in kinship have also been confirmed with long-term diachronic empirical data (e.g., Witschey 1991). Where empirical data do not support the normative rules, some authors have explained the deviations as resulting from catastrophic population losses and other acculturative impacts (e.g., Brandt 1979:349). For example, Haviland (1970a) interpreted prehispanic Chontal Maya kinship as cognatic using sixteenth century data. However, he quickly recanted after considering the greater than 95 percent loss in Chontal and other Maya populations within the early sixteenth century (Haviland 1970b, 1973). These observations suggest that researchers may wish to approach cultures historically and on an individual basis (e.g., Chance 2000:500), and with empirical analyses on actual behavior before making generalized conclusions on descent theory. The present analysis indicates that descent theory and marital alliance theory are valid approaches. If not valid for modern cultures undergoing drastic changes associated with expanding capitalism, or historically devastated populations, then at least for ethnohistorical and archaeological situations where these processes and events had not yet occurred. Having established that the normative accounts may be used for understanding marriage systems, I now turn to the model for transformations in societies with Crow-Omaha kinship.

Disproportionate Clan Growth Among the Omaha

Archaeologists are increasingly considering the importance of ceremony for interpreting sociopolitical organization and social processes in prehistory (e.g., Aldenderfer 1993; Blitz 1993; Byrd 1994; Potter 2000; Spielmann 2002; VanDerwarker 1999; Whalen and Minnis 1996). Following ethnographic observations, some archaeologists have more specifically included in their discussions the role of ceremony in marriages (e.g., Haury 1976; Wilcox and Sternberg 1983). Ethnographically, we know that among societies with clans, clans disappeared when their populations were diminished while other clans were disproportionately large. For example, based on Ladd's (1979:487) population distributions for Zuni clans in 1916, 26 percent of the total number of families belonged to the largest clan, the next largest clan comprised 12 percent of the total number of families, and the average for all other clans was less than five percent of the total number of families. We also know that some clans tend to have more members responsible for ceremonial activities than do other clans and that ceremonial sponsorship confers prestige. Here, I analyze the ethnohistoric relationship between marriage behavior and ceremonial roles in the growth of Omaha clans. The findings indicate a positive correlation between clan size and ceremonial offices. Disproportionate clan growth is shown to result from a tendency for more women to marry men of clans that are more greatly involved in ceremonial affairs. The more ceremonially active clans therefore have more numerous families. This socio-demographic process may explain why some prehistoric settlements outgrow others in terms of ceremonial activities and population. Furthermore, the same process may lead to "crises in exogamy" whereby there are not enough members from smaller clans for marriage with the large clans. Such crises for the large clans may result in decisions to fission into smaller exogamous groups: either establishing new settlements or forming large multi-clan settlements.

The late nineteenth century Omaha of Nebraska had 10 exogamous clans of varying sizes. Some of the clans at the time were close to disappearance because of their small populations. At the same time, other clans were disproportionately large in population. Bureau of Indian Affairs census data from 1886 to 1902 are used to demonstrate how clan exogamy contributed to this disproportionate growth among Omaha clans and how clan size was associated with the sponsoring of tribal ceremonies. The findings are discussed for their significance to modelling long-term cultural processes and for their significance to archaeological settlement hierarchies.

Omaha Clans, 1886-1902

In 1886, there were a total of 1145 individuals enumerated in the BIA census. Clan size was determined by the number of monogamous and polygynous families. In 1886, there were a total of 202 families. The husbands', and hence childrens', clan affiliations were identified in all but 32 of these families. The data on clan size is therefore a sample involving 170 monogamous and polygynous unions representing 84 percent of all families enumerated.

The clan-specific demographic data are illustrated in Figure 2-2. The circles represent the 10 clans arranged by their locations in temporary ceremonial camps. The sizes of the circles are reflected by the total number of nuclear families within each clan. The numbers of families and the percentage of the total population are listed within each clan circle. The *I^{n}ke'çabe* and *Tha'tada* clans were the largest, having 30 and 35 families, respectively. The *Tapa'* and *I^{n}shta'çu^{n}da* clans were the next largest, and the remaining clans were relatively small. The smallest, the *Ko^n'çe* clan, included only five families.

Table 2-6 shows the tribal ceremonial responsibilities taken on by members of each clan. The table includes both the existing ceremonial offices in the 1880s-1890s and the ceremonial rites that had been lost by that time. A comparison of the numbers of ceremonial responsibilities in Table 2-6 with the clan sizes shown in Figure 2-2 suggest a positive correlation between the two. In part, this is to be expected since the

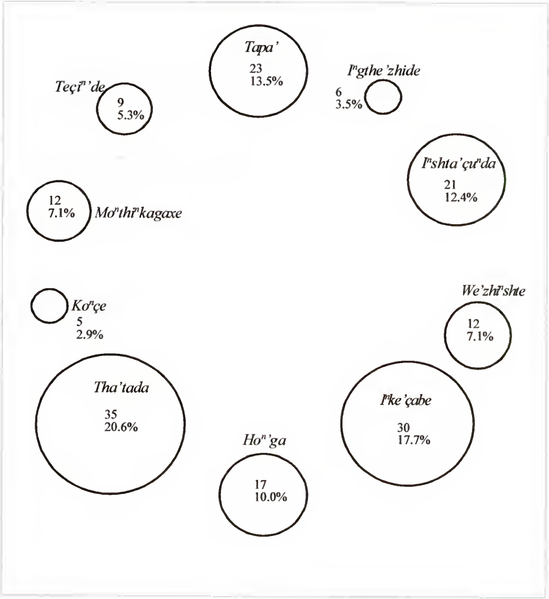


Figure 2-2. Relative sizes of Omaha clans in 1886.

larger clans would have more individuals willing to lead ceremonies. However, as will be seen, the larger clan sizes are also a result of marriages that favor growth among the more ceremonially active clans.

There were a total of 1170 persons enumerated in the 1894 census and 1218 persons enumerated in the 1902 census. As the children of the families in the 1886 census married, the total number of families increased to 317. Among these, I was able to identify the clans of 292 husbands, representing 92 percent of all families. Figure 2-3 shows the relative sizes of clans by 1902. By 1902, the *Iⁿke’çabe* clan, having the most numerous tribal ceremonial responsibilities, grew to become the largest clan. The *We’zhiⁿshte*, *Moⁿthiⁿkagaxe*, and *Teçiⁿ’de* clans, having few tribal ceremonial responsibilities, increased only slightly in relative size. The *Koⁿçe*, *Tapa’*, and *Iⁿgthe’zhide* clans, having few ceremonial responsibilities, decreased slightly in relative size. Meanwhile, the *Hoⁿ’ga*, *Tha'tada*, and *Iⁿshta’çuⁿda* clans, also with few tribal ceremonial responsibilities (or ceremonial offices of decreasing importance in the case of the *Tha'tada*), decreased considerably in relative size.

These data suggest that clan growth was correlated with the amount of ceremonial leadership of clans. The *Iⁿke’çabe* clan, having the more numerous tribal ceremonial responsibilities became the largest clan. The reduction in relative size of the *Tha'tada* clan, which was once the largest, can be related to the decreasing importance of the clan’s ceremonial offices.

Omaha Marriages

Table 2-7 provides data on all marriages whereby clan affiliations were identified for both spouses. This sample comprises 53 percent of all marriages. Viewing the right hand total column as an indicator of how many families were gained through marriage by each patriclan (within the sample), it is clear that more women married men of the *Iⁿke’çabe* clan than men of other clans. In part, this is to be expected given the larger marriage pool of men in the *Iⁿke’çabe* clan.

Table 2-6. Ceremonial offices held by the Omaha clans in the late 1800s.

Clan	Offices
We'zhi^n*shte* clan (Elk clan)	1. Keepers of the War Tent where Council of Seven Chiefs would convene for decisions on intertribal incidents. 2. Rites pertaining to thunder.
I^n*ke'çabe* clan (black shoulder of buffalo?)	1. Regarded as the first Omaha to exist. 2. Led buffalo hunts: great authority regarded as sacred with hereditary offices. 3. Hereditary custodians of the sacred Tribal Pipes: symbols of tribal authority 4. Hereditary right to paint the tribal Pole 5. Hereditary office of tribal herald 6. Custody of songs
Ho^n*'ga* clan (leader or first)	Clan represented leadership in the governing of the tribe and had a central location in the ceremonial buffalo hunting camp (akin to the father's place in a tent). 1. Custodians of both Sacred Tents and their contents.
Tha'tada clan (left of those sitting)	1. Ceremonial use of the Tribal Pipes. 2. Rites pertaining to the buffalo head (no longer practiced, but the lineage was insured representation in Council of Seven Chiefs) 3. Growth and care of maize (of greater importance to the tribe prior to moving into buffalo country). 4. Rites observed at awakening of the Spring. 5. Protection of crops from birds. 6. Rites pertaining to rain. Note: Fletcher and La Flesche (1992:159) describes the clan's surviving ceremonial roles to have become less prominent after moving into buffalo country.
Ko^n*'çe* clan (belonging to Kansa)	1. Rites pertaining to wind (no longer practiced) 2. Started the ballgame.
Mo^n*'thi*^{n}*kagaxe* clan (make earth?)	1. Keepers of four Sacred Stones (no longer practiced). 2. Rites pertaining to the Wolf (no longer practiced). 3. Rites pertaining to water and the swan (no longer practiced).

Table 2-6. Continued

Clan	Offices
Teçi^{n}*'de* clan (buffalo tail)	1. Rites pertaining to the Crow: the Creation of People? (no longer practiced).
Tapa' clan (deer, referring to Pleiades)	1. Rites connected with stars and night skies: the Creation? (no longer practiced). 2. Ceremonial cutting of children's hair. 3. Painting of newborns when they received their *ni'kie* names. Note: Fletcher and La Flesche (1992:178) claim there once were groups in charge of multiple duties connected with the lost rites.
I^{n}*gthe'zhide* clan (excrement of newly born calf)	1. Rites pertaining to procreation of humans through the medium of the sky powers (no longer practiced).
I^{n}*shta'çu*^{n}*da* clan (lightning)	1. Rites pertaining to the power of the sky to fructify the earth (no longer practiced) 2. Rites pertaining to the consecration of the child. 3. Recital during filling of the Two Sacred Pipes (ended with death of keeper in 1850) 4. Ceremonial appeal for the preservation of crops during insect invasions: hereditary offices.

Compiled from Fletcher and LaFlesche (1992:145-195)

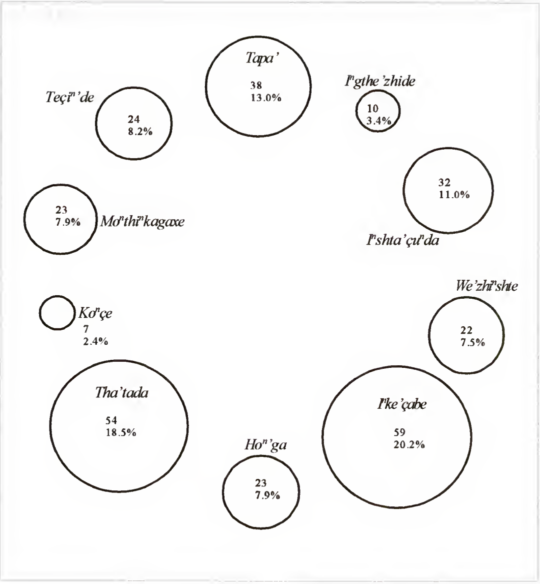


Figure 2-3. Relative sizes of Omaha clans in 1902

In comparing the marriage choices of women in small clans in Table 2-7, it becomes apparent that men of large clans were favored by women of small clans. Essentially, more women of small clans married men of larger clans than men of other small clans. The effect this produced is that smaller clans had less chance to increase in numbers of families because their daughters favored men in larger clans. If women married more often with smaller clans, which they may not have been able to do because of the smaller pools of men, the smaller clans would have increased in size. Instead, the larger clans disproportionately gained more wives than the smaller clans.

However, large clan size alone cannot explain the marriage choices. The dramatic reduction in numbers of families in the *Tha'tada* clan, which began as the largest clan, begs the question of why that clan did not experience growth through marriages in the same way as the *I*^{n}*ke’çabe* clan. My first thought on this difference between the two large clans was that there may have been a high ratio of women to men of marriageable age in the *Tha'tada* clan. If so, more women would have married out than would have married into the clan. Conversely, there may have been a low ratio of women to men of marriageable age in the *I*^{n}*ke’çabe* clan, which would result in fewer women who married out than would have married into the clan.

As a test of the sex-ratio hypothesis, I counted the number of unmarried men and women of marriageable ages in 1886, and boys and girls who would become of marriageable ages by 1902, for both clans (Table 2-8). Children who would have been of marriageable age by 1902 would have been five years or older in 1886. If a high sex ratio of women to men contributed to the reduction in size of the *Tha'tada* clan through marriages, then we would expect more unmarried women than men over age five in 1886. As Table 4 demonstrates, the numbers of women and men who could potentially be married between 1886 and 1902 are instead nearly equal. These data suggest that the sex ratio of potential spouses was not a factor in the significant reduction in relative size experienced by the *Tha'tada* clan. Furthermore, only 19 of the *Tha'tada* men did actually marry indicating that the reduction in families among the *Tha'tada* clan could have been less had those men married within the period of study.

Table 2-7. Omaha marriages by clan, 1886-1902.

						WOMEN						
		We'zhi^{n}shte	*I^{n}ke'çabe*	*Ho^n'ga*	*Tha'tada*	*Ko^{n}çe*	*Mo^{n}thi^{n}kagaxe*	*Teçi^n'de*	*Tapa'*	*I^{n}gthe'zhide*	*I^{n}shta'çu^{n}da*	Total
	We'zhi^{n}shte	1	1	0	3	0	0	0	4	1	1	11
	I^{n}ke'çabe	3	1	6	12	3	1	0	2	2	6	36
M	*Ho^n'ga*	1	2	0	5	1	1	4	4	1	0	19
	Tha'tada	4	3	3	1	3	1	2	3	2	3	25
E	*Ko^{n}çe*	0	0	0	0	0	0	1	1	0	0	2
	Mo^{n}thi^{n}kagaxe	0	1	2	2	0	1	1	0	0	2	9
N	*Teçi^n'de*	0	4	0	3	0	0	2	5	2	1	17
	Tapa'	1	1	3	11	1	0	1	1	0	4	23
	I^{n}gthe'zhide	0	0	0	3	0	0	0	0	0	0	3
	I^{n}shta'çu^{n}da	2	0	2	11	0	3	2	1	1	0	22
	Total	12	13	16	51	8	7	13	21	9	17	167

The table only includes marriages with both spouses' clan affiliations identified.

If a low ratio of women to men contributed to the significant increase in size among the *I'ke'çabe* clan, then we would expect more unmarried men than women over age five in 1886. Table 2-8 does indicate that there were less women than men who could potentially be married between 1886 and 1902. However, 10 of these potential husbands did not marry within the period of study. If they had chosen to marry, the sex ratio would have resulted in far greater growth in the numbers of families. Therefore, in the case of the *I'ke'çabe* clan, the sex ratio of potential spouses does not adequately explain the significant increase in families. In the case of the *Tha'tada* clan, the sex ratio of potential spouses does not explain the significant reduction in families.

Because both the *I'ke'çabe* and the *Tha'tada* clans started out large, clan size alone cannot explain why the *I'ke'çabe* clan continued to grow disproportionately large. Additionally, sex ratios of potential spouses has been ruled out as a factor in the different population histories between the two large clans. Instead, I suggest that the decreased importance of the *Tha'tada* clan's ceremonial offices may have been a greater factor in the decreasing size of that clan. Conversely, the *I'ke'çabe* clan's more numerous and more prominent ceremonial offices may have been a greater factor in the increasing size of that clan, which overshadowed the size of all other Omaha clans.

The results of the analyses on the Omaha suggest a tendency for more women to have married men of the clan having the more numerous and more prominent ceremonial offices than with men of other clans having less numerous or less prominent ceremonial offices. The result was a significant increase in size in the clan having the more numerous and more prominent offices because the children of women who married men of that clan were affiliated with their husbands' clan. Meanwhile, members of the *Tha'tada* clan, which

Table 2-8. Unmarried men and women in 1886 who were, or would be, of marriageable age by 1902.

	Men		Women	
Iⁿke’çabe	5-9 yrs:	11	5-9 yrs:	9
	10-14 yrs:	19	10-14 yrs:	17
	15-19 yrs:	8	15-19 yrs:	2
	20-24 yrs:	1	20-24 yrs:	1
	≥ 25 yrs:	0	≥ 25 yrs:	0
	Total:	39	Total:	29
Tha’tada	5-9 yrs:	11	5-9 yrs:	13
	10-14 yrs:	8	10-14 yrs:	13
	15-19 yrs:	6	15-19 yrs:	4
	20-24 yrs:	2	20-24 yrs:	2
	≥ 25 yrs:	1	≥ 25 yrs:	1
	Total:	28	Total:	33

started out as the largest but had ceremonial offices of decreasing importance to the tribe, attracted fewer wives resulting in a reduction in size. The remaining smaller clans either grew slightly, remained stable, or decreased in size. Although women favoring spouses in ceremonially prominent clans influenced the disproportionate growth among the patrilineal Omaha, I should quote my wife’s grandmother’s cautionary statement that “all women marry beneath themselves.”

Disproportionate Growth and "Crises in Exogamy"

Clan growth among the Omaha favored clans that had more prominent roles in the tribe's ceremonial affairs. Meanwhile other clans with fewer and less prominent ceremonial roles remained small or decreased in size. These findings have relevance for long-term demographic changes in societies sharing an Omaha marriage system. Because Crow kinship has the matrilateral equivalent of the Omaha marriage system, the processes resulting in disproportionate clan growth among the Omaha also can be used as a model of demographic trends in societies with Crow kinship. In general, we could expect that few clans tend to grow disproportionately large in population through time as a result of having greater ceremonial importance within the societies. In the patrilineal Omaha system, the prestigious clans attract prospective wives from other prestigious clans *and* from the less prestigious clans. The children of those marriages belong to the husband's clan. Women from both the prestigious clans *and* the less prestigious clans therefore contribute to the population growth of the prestigious patriclans. However, fewer women marry men of the less prestigious clans, resulting in little demographic growth (or even negative demographic growth) among the less prestigious patriclans.

Group survival over generations is dependent upon marriages and human reproduction. Access to resources involves descent relations within the exogamous group. To have resources, the group must have members. Those members must reproduce themselves through marriage and procreation for the group to survive. The amount of resources available to any one member of a group is therefore related to the number of people he or she is related to.

In the context of Crow-Omaha alliances, members of one exogamous group may find spouses among several potential exogamous groups. Because there is no rule on which group one must select a spouse from, the alliance system opens the door to decision-making in spouse selection. If a clan cannot attract spouses through surplus and ceremony--and it must because there are no predetermined marriage pools--the clan will not produce children and will gradually disappear through negative population growth and lack of resources with which to survive and compete. Above, I demonstrated how ceremonial prominence influences decision-making in spouse selection.

In the matrilineal Crow system, the prestigious clans attract prospective husbands from *both* the prestigious clans *and* the less prestigious clans. The children of those marriages belong to the wife's clan. Therefore, the men from both prestigious *and* less prestigious clans contribute to the population growth of the prestigious matriclans. However, fewer men marry women of the less prestigious clans, resulting in little demographic growth (or even negative demographic growth and dwindling resources) among the less prestigious matriclans.

This process should not occur with elementary alliances or complex alliances. In elementary alliances, predetermined groups exchange members at equal rates (assuming equal sex ratios). With complex alliances there are no exogamous groups (with the exception of the family incest taboo). However, in Crow-Omaha alliances members are exchanged among clans but there are no predetermined clans for intermarriage, openning the door for prestigious clans to receive members at unequal rates.

As the more prestigious exogamous clans grow larger, they have more resources (resources are underutilized without people to use them and access to resources is through clan membership), more labor (by having more members), and greater capacities for surplus production (by more numerous members) giving them an advantage in staging ceremonies and in attracting more marital alliances than do other clans. However, the decreasing relative size of the smaller clans presents a problem for clan exogamy. The logical outcome of these tendencies is that individuals in the disproportionately large clans eventually lack enough potential spouses from other clans with whom to intermarry. I refer to this as a "crisis in exogamy." Because Crow-Omaha marital alliances reproduce the clan social structure, ceremonial organization, source of resources, and source of labor, a crisis in exogamy is a crisis in political economy--a crisis in social reproduction. To maintain exogamy under such circumstances, the larger groups must fission into smaller exogamous groups, begin intermarriage with new groups, or devise other strategies that may transform the society.

Figure 2-4 illustrates this model. In Figure 2-4A, the upper left clan is shown to have more in-marrying spouses than the other clans. Following this process to its logical conclusion the hypothetical society would resemble Figure 2-4B, which could be several generations later. In Figure 2-4B, the upper left clan is so disproportionately large that clan exogamy would be difficult to maintain. Potential spouses in that clan would not find enough marriage partners from the other clans. Figures 2-4C-E are alternative possible ways that the hypothetical society could resolve the crisis in exogamy.

The marital alliance perspective focuses on how kinship structures the exchange of members through marriage. The three main categories of alliance systems, originally proposed by Lévi-Strauss (1969), have been described. Because the Crow-Omaha system is emphasized in this dissertation, the model was tested against empirical data on nineteenth century marriage behavior among the Omaha of Nebraska. Having concluded that the model is accurate, I then demonstrated how ceremonially prominent clans attract more marriages. This process is argued to result in disproportionate clan growth that propells Crow-Omaha societies toward a "crisis in exogamy," which can lead to social transformations. In the following chapter, I describe the archaeological correlates of the kinship and marital alliance models, which are relevant to the subsequent archaeological case studies.

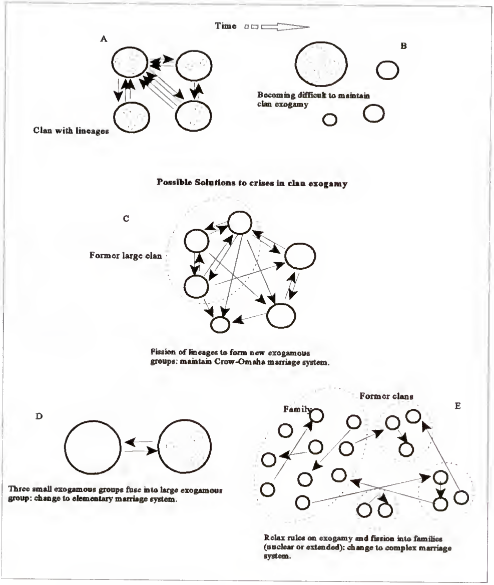

Time
A
B
Clan with lineages
Becoming difficult to maintain clan exogamy
Possible Solutions to crises in clan exogamy
C
Former large clan
Fission of lineages to form new exogamous groups: maintain Crow-Omaha marriage system.
D
Three small exogamous groups fuse into large exogamous group: change to elementary marriage system.
Former clans
E
Family
Relax rules on exogamy and fission into families (nuclear or extended): change to complex marriage system.

Figure 2-4. Disproportionate growth in the Crow-Omaha marriage system and possible solutions to resulting crises in clan exogamy. Arrows indicate potential marriages for each system.

CHAPTER 3
ARCHAEOLOGICAL CORRELATES AND EXPECTATIONS

As described in the introduction, the identification of kinship systems in prehistory may appear as no small task given debate over the years on what constitutes archaeological evidence for kinship systems. However, these debates focus on whether or not matrilineal descent/matrilocality and patrilineal descent/patrilocality can be recognized in the archaeological record. The advantage of a marital alliance perspective over traditional descent-oriented approaches is that the Crow-Omaha alliance model does not require distinguishing between patrilineal and matrilineal descent, or between patrilocality and matrilocality. The complex alliance model does not require identifying whether a society practiced cognatic descent and bilateral descent, or between neolocality and bilocality. Although both the Crow-Omaha system and the complex system lump together many traditional categories of kinship into two general categories, all types of kinship within each category share patterns in group composition and interaction. Groups and their interaction are more easily interpreted archaeologically.

This chapter describes archaeological correlates of Crow-Omaha and complex marital alliance systems. The primary lines of evidence used to distinguish between the two alliance systems are community patterns: settlement group composition and site structure, or layout, of settlements. Long ago, Chang (1958) noted correlations in community patterns between societies with lineages (e.g., matrilineal and patrilineal descent) and nonlineages (e.g., cognatic descent) (Table 3-1). In the same vein, I conducted a survey of ethnological data from California, Southwest, Plains, and Southeast aboriginal societies. The results are used to demonstrate predictable community patterns for Crow-Omaha and complex marital alliances. Data on California, Southwest, and Plains cultures were collected from the *Handbook of North American Indians* (Heizer 1978; DeMallie 2001a; Ortiz 1979, 1983). These sources were used instead of the HRAF for having lengthier descriptions on the data sought and for a larger sample of North American societies than available in the HRAF.

Table 3-1. Chang's correlations between kinship and community patterns in 53 societies.

	Nonlineage	Monolineage	Multilineage	Total
Homesteads	1	--	--	1
Unplanned Villages	1	--	7	8
Planned Villages	--	10	--	10
Segmented Villages	2	--	32	34

From Chang (1958:306 [Table 1])

The 18 California societies include the following: Foothill Yokut (Spier 1978), Hupa (Wallace 1978a), Luiseño (Bean and Shipek 1978), Tipai-Ipai (Luamala 1978), Cahuila (Bean 1978), Nomlaki (Goldschmidt 1978), Chimariko (Silver 1978a), Karok (Bright 1978), Shasta (Silver 1978b), Tolowa (Gould 1978), Yurok (Pilling 1978), Wintu (Lapena 1978), Tubatulabal (Smith 1978), Pomo (McLendon and Lowy 1978; Bean and Theodoratus 1978), South Valley Yokut (Wallace 1978b), Yana (Johnson, J.1978), Eastern Miwok (Levy 1978), Gabrielino (Bean and Smith 1978), and Maidu (Riddell 1978). The 31 Southwest societies include the Havasupai (Schwartz 1983), Yavapai (Khera and Muriella 1983), Mohave (Stewart 1983), Maricopa (Harwell and Kelly 1983), Quechuan (Bee 1983), Papago (Fontana 1983; Bahr 1983), Lower Pima (Dunnigan 1983), Seri (Bowen 1983), Mayo (Crumrine 1983), Tarahumara (Pennington 1983), Chiricahua Apache (Opler 1983a), Mescalero Apache (Opler 1983b), Taos Pueblo (Bodine 1979), Picuris Pueblo (Brown 1979), San Juan Pueblo (Ortiz 1979), Santa Clara Pueblo (Arnon and Hill 1979), Nambe Pueblo (Speirs 1979), Pojoaque Pueblo (Lambert 1979), Tesuque Pueblo (Edelman and Ortiz 1979), Cochiti Pueblo (Lange 1979a), Santo Domingo Pueblo (Lange 1979b), San Felipe Pueblo (Strong 1979a), Santa Ana Pueblo (Strong 1979b), Zia Pueblo (Hoebel 1979), Jemez Pueblo (Sand 1979), Laguna Pueblo (Ellis 1979), Acoma Pueblo (Garcia-Mason 1979), Zuni (Ladd 1979), and Hopi (Connelly 1979). The 13 Plains societies include the Osage (Bailey 2001), Pawnee (Parks 2001a), Teton (DeMallie 2001b), Arapaho (Fowler 2001), Cheyene (Moore et al. 2001), Hidatsa (Stewart 2001), Mandan (Wood and Irwin 2001), Arikara (Parks 2001b), Omaha (Liberty et al. 2001), Ponca (Brown and Irwin 2001), Plains Apache (Foster and McCollough 2001), Lipan Apache (Opler 2001), Tonkawa (Newcomb and Cambell 2001).

Because there is no Handbook of North American Indians for the Southeast, the same data on Southeastern societies were collected from the *Encycolpedia of World Cultures* (O'Leary and Levinson 1991) and additional sources (e.g., Hudson 1976; Swanton 1946). Only the societies having descriptions of all the data sought are included in the analysis. Although many of the authors of those volumes provided valuable discussions on kinship and adherence to kinship rules, they did not specifically refer to marital alliances. Therefore, my classification of each society into either Crow-Omaha or complex categories was based on descriptions of social and political organization, kinship, exogamy, and marriage pool preferences.

As described in the preceding chapter, ceremony and marital alliances are interrelated. How groups exchange members also determines intergroup exchange of surplus in competitive ceremony (e.g., Rosman and Rubel 1971). Alliance theory emphasizes the importance of marriage to social structure and marriages are the linking of groups, often involving enormous payments by the groups (Fox 1967:232). Furthermore, in alliance systems where there is competition, groups compete for prestige during practically all forms of ceremonies (e.g., Rosman and Rubel 1971). Given the ways that groups are structurally interrelated through marriage, surplus production, and exchange, all of which reproduce a given social structure, the marital alliance system can be used to define the political economy of a society. Therefore, expectations in the social organization of ceremonial activity, surplus production, and exchange for Crow-Omaha and complex marital alliances are described in this chapter.

In addition to community patterns, ceremony, and surplus production and exchange, patterns in ranking and demography can be found to correlate with Crow-Omaha and complex marital alliances. In the case of the Crow-Omaha system, the relationship among ceremony, marriages and group size were described in the previous chapter. The results of the ethnological survey also indicate different types of ranking between the two marital alliance categories. The ranking and demographic implications of the marital alliance systems are described along with their archaeological correlates. The results of the correlational analyses on the California, Southwest, and Plains cultures are summarized in tables 3-2, 3-3, and 3-4. Patterns observed in the Southeastern societies are described in text.

Crow-Omaha Alliances

Crow-Omaha alliance systems are common in North America (Fox 1967:227). In Crow and Omaha marriage systems (Figure 2-1), the individual must marry outside his or her exogamous clan or similar exogamous group. In some societies, there is also a preference for avoiding marriage with the mother's clan in an Omaha system or the father's clan in a Crow system. However, unlike elementary alliances the individual does not have a specified clan with which to find a spouse. Therefore, each lineage within the exogamous clan can have alliances with lineages in multiple clans other than its own. Men, in a Crow system, and women, in an Omaha system, remain members of their clan of birth, which promotes close social ties between the two clans. Unlike elementary alliance systems, the alliances in a Crow-Omaha system may shift with each generation of marriages.

Table 3-2. Correlations among 18 aboriginal California societies.

Marital Alliances	n	Formal Community Patterns	Ranked groups or settlements
Omaha			
Exogamous settlements	7	7	3
Settlements of multiple exogamous groups	3	3	2
Complex ("House Societies")	8	1	0

Table 3-3. Correlations among 31 aboriginal Southwest societies.

Marital Alliances	n	Formal Community Patterns	Formal Pueblo	Ranked groups or settlements
Crow-Omaha				
Exogamous settlements	1	1	0	0
Settlements of multiple exogamous groups	11	0	10	2
Complex	19	0	8	0

Table 3-4. Correlations among 13 aboriginal Plains societies.

Marital Alliances	n	Formal Community Patterns	Formal camps	Ranked groups or settlements
Crow-Omaha				
Exogamous settlements	1	0	1	0
Settlements of multiple exogamous groups	9	5	4	3
Complex	3	0	0	0

Settlement Composition and Community Patterns

Settlements in societies with Crow-Omaha alliances were either comprised of single exogamous groups (i.e., exogamous settlements) or of multiple exogamous groups. The latter involved large villages, many having more than 1000 persons. A comparison of tables 3-2, 3-3, and 3-4 indicates that settlements comprised of single exogamous groups were common in California but rare in the Southwest and Plains. In several Southwest and Plains societies, the entire “tribe” lived in one village. Multiple exogamous group settlements were common in the ethnohistoric Southeast (Garbarino 1991; Hudson

1976:189-196; Merrell 1991; Peregrine 1991; Peterson 1991; Reid 1991; see also Murdock 1967:114-115).

Groups competing with other groups for marital alliances frequently use the hosting of dances, games, feasts, and ceremonies to express their collective abilities. Because Crow-Omaha marital alliances are largely competitive among exogamous groups, exogamous settlements are expected to have formal site layouts with central plazas and/or other focal spaces or structures. The formal layouts are not only for the practical purposes of hosting events, but also express the descent group's collective identity and success at sponsoring ceremonies. Tables 3-2, 3-3, and 3-4 demonstrate this correlation between exogamous settlements having Crow-Omaha alliances and formal community patterns among California, Southwest, and Plains societies.

Most of the Crow-Omaha societies having settlements with multiple exogamous groups in California, the Southwest, and the Plains also had formal community patterns (tables 3-2, 3-3, and 3-4) but formed very large villages. Four of the Plains societies living in large settlements of multiple exogamous groups lacked formal community patterns. However, all four had formally arranged buffalo hunting camps where most of these societies' ceremonies took place (Table 3-4). The Omaha were among the four and it is interesting to note that the Omaha originally lived in individual clan settlements prior to historic warfare and migration to their current area (Fletcher and LaFlesche 1992:72, 159; Smith 1974:218-219). Reservation policies further complicated the community patterns. Early observers of numerous Southeastern societies also described formal community patterns: typically houses surrounding a circular or rectangular plaza, sometimes with central chiefs' houses and/or other central structures (Garbarino 1991; Hudson 1976:211-212; Merrell 1991; Peterson 1991; Swanton 1946:631-640; Reid 1991).

An important consideration in Crow-Omaha systems is that exogamous clans are typically comprised of multiple lineages (represented by nuclear families, extended families, or multiple extended families depending on the size of the lineage). However, no matter how important the lineages are in some acquired tribal functions, marriage is regulated by clan affiliation. Members of the lineages are expected to marry outside their clan. Because lineages are a component of exogamous clans, community patterns in settlements comprised of single exogamous groups may appear "segmented": each lineage may have a specific location within the exogamous settlement . Likewise, in settlements comprised of multiple exogamous groups, each exogamous group may have a discrete location within the settlement and each lineage may have a specific location within each exogamous group's area (this was often altered by allotment policies encouraging neolocal residence).

Ceremony, Surplus Production, and Exchange

Because there are no predetermined marital groups in Crow-Omaha systems, there is competition for alliances. Each household's ability to attract marital alliances from outside its group is dependent upon the collective success of the group in providing gifts or by holding ceremonial offices. Ceremony requires surplus production in utilitarian and symbolic trade items, time invested in procuring or acquiring rare materials, and feasts (e.g., Spielmann 2002). There is a greater need for surplus when marital alliances are sought with prestigious groups. The exogamous groups collectively participate in ceremony, and contribute to the associated surplus production. My emphasis on the collective ceremonies is not meant to deny that ritual can take place at the individual or family scales, just as nonceremonial activities can take place in multiple social arrangements (e.g., Ensor 2000). The surplus production associated with ceremonial activities may have involved communal production whereby the entire exogamous group participated in the production process. Alternatively, individual families may have produced surplus on their own for these occasions but pooling the surplus with the exogamous group.

Exchange patterns are expected to reflect the marital alliances in any given society (Rosman and Rubel 1971). In a Crow-Omaha system, members of all clans can intermarry. Therefore exchange should reflect interclan alliances. In those societies having individual clan settlements, there should be widespread intersettlement exchange. In the societies with large settlements comprised of multiple clans, one would therefore expect both intrasettlement and intersettlement exchange. Where entire tribes lived in single large settlements, there should be little intersettlement exchange.

Ranking and Demography

Ranking can occur among exogamous groups (tables 3-2, 3-3, and 3-4). The exogamous groups that are more successful at acquiring surplus for ceremonial occasions, ceremonial offices, and marital gifts tend to have greater prestige. Due to elaborate ceremonies from competition, internal status ranking *may* occur whereby leaders manage the collective surplus of the group, using those roles to enhance their status. The exogamous groups may even have stratified lineages whereby this role is inherited (tables 2-4). However, unlike classic models of chiefdoms (e.g., Fried 1967; Sahlins 1972; Service 1971), a chiefdom based on Crow-Omaha alliances does not involve redistribution between the higher ranked groups and the lower ranked groups. Instead, all exogamous groups compete for rank through ceremony and their members acquire or produce surplus and long-distance trade items on their own.

As described in Chapter 2, Crow-Omaha alliances involve exogamous clans with no specified clan in which to find a spouse. Clans compete with other clans in ceremonial competition and exchange, through collective surplus production, to attract favored marriage alliances. More ceremonially prominent clans have greater prestige, resulting in the attraction of more alliances than do the less ceremonially prominent clans. Because the children of marriages belong to the clan of the father (in an Omaha system) or the clan of the mother (in a Crow system), the more ceremonially active clans grow disproportionately large by attracting more spouses. Uninterrupted, this process leads to a "crisis in exogamy" for the large clans because there are too few potential spouses among the remaining clans for its members.

This process should not occur with elementary alliances or complex alliances. In elementary alliances, predetermined groups exchange members at equal rates. With complex alliances there are no exogamous groups (with the exception of the family incest taboo). However, in Crow-Omaha alliances members are exchanged among clans or similar exogamous groups but there are no predetermined groups for intermarriage, openning the door for prestigious groups to receive members at unequal rates.

Crow-Omaha societies may have either individual clan settlements (exogamous settlements) or large villages with multiple exogamous clans. In both cases, Crow-Omaha settlements correlate with formal community patterns, which include central plazas and/or ceremonial features in communal spaces. Exchange relations are expected among all clans, reflecting the marriage alliances. More ceremonially active clans should be the largest and should demonstrate continued positive growth because they attract more marital alliances. Less ceremonially active clans are expected to be smaller and to remain small or diminish in size through time. The significance to archaeological settlement patterns can be exemplified in an example of prehispanic settlement hierarchies in the U. S. Southeast.

Settlement Hierarchy in the U. S. Southeast

Crow kinship, the matrilineal version of Crow-Omaha kinship, was widespread in the historic periods of the U.S. Southeast. In many of the southeastern societies, towns were comprised of multiple clans or similar exogamous groups (Garbarino 1991; Hudson 1976:189-196; Merrell 1991; Peregrine 1991; Peterson 1991; Reid 1991; see also Murdock 1967:114-115). In other Southeastern societies with Crow kinship, the towns were exogamous (e.g., Moore and Campbell 2002). Additionally, Moore and Cambell (2002) empirically demonstrate that normative rules of town exogamy and matrilocal postmarital residence were greatly adhered to among the historic Mvskoke Creeks of Alabama and Georgia.

Early observers of numerous Southeastern societies described formal community patterns: typically houses surrounding a circular or rectangular plaza, sometimes with central chiefs' houses and/or other central structures (e.g., Garbarino 1991; Hudson 1976:211-212; Merrell 1991; Peterson 1991; Swanton 1946:631-640; Reid 1991). Archaeologists have observed that these formal community patterns extended back into the Woodland and Mississippian periods throughout the Southeast (e.g., Demel and Hall 1998; Hally and Kelly 1998; Kelly 1990; Lewis et al. 1998; Payne and Scarry 1998:34-41; Peregrine 1992:135-139; Schroedl 1998; Stout and Lewis 1998). By direct historical analogy and by the similarity between the prehistoric community patterns with those of Crow-Omaha kinship in the ethnographic survey, I suggest that Crow kinship and marriage systems were widespread in the prehistoric Southeast.

Settlement size hierarchies within Southeastern regions are typically viewed through a chiefdom perspective. Simple chiefdoms are interpreted where there are two-tiers to a regional settlement hierarchy. Complex chiefdoms are assumed to have existed where three or more tiers have been demonstrated. Using such models for interpreting regional settlement size hierarchies, Anderson (1996a, 1996b) points out a widespread pattern in the Southeast for "chiefly cycling"--simple chiefdoms developing into complex chiefdoms and then collapsing back into simple chiefdoms. In a related view, Blitz (1999) suggests that a fission-fusion process may account for the formation of multiple mound sites and subsequent splitting off into single mound sites.

The model for disproportionate clan growth in Crow-Omaha marital alliances may provide an explanation for increased ranking in regional settlement hierarchies and a return to less ranked settlement hierarchies. If each of the sites described by Anderson (1996a, 1996b) were exogamous clans or similar exogamous groups, then the larger sites making up the top tier in a complex chiefdom could have grown disproportionately large as a result of having more ceremonial offices for the participatory region and therefore attracting more marital alliances. Because the mounds were special structures for ceremonies and leaders, this model not only explains the larger populations at those settlements but also their greater numbers of mounds for sponsoring greater numbers of ceremonies. The subsequent return to smaller single-mound sites may reflect fissioning of the larger settlements after crises in exogamy, as illustrated in Figure 3-1. Having enough members, the previous lineages within the exogamous settlements may split off to form multiple exogamous groups.

Blitz (1999) proposes that the fusion of polities may account for the growth of multiple-mound sites and that fissioning may account for the return to multiple single-mound sites. In this model, the fission-fusion process is a result of mound-associated groups having conflicts resulting in fissions, and alliances resulting in fusions with other mound-associated groups. Although the fissioning process establishes new sites, Blitz's model also suggests the new sites maintain close relations with the parent site. The Crow-Omaha model for disproportionate growth need not contradict Blitz's interpretation of fissioning whereby new smaller settlements are established by breakaway factions. Aspiring junior leaders would no doubt welcome the opportunity to become leaders of a new group. The Crow-Omaha model also accounts for the maintaining of intersite relations: members of the different sites are interrelated by Crow-Omaha marital alliances throughout the process. What does contradict Blitz's model is the process resulting in larger sites. Rather than different groups fusing into larger groups, few exogamous settlements grow dispropoportionately large over time by attracting more spouses and beginning greater numbers of families than do the smaller settlements. Meanwhile the smaller exogamous settlements remain small or gradually disappear.

The Crow-Omaha model for disproportionate clan growth may also explain how settlements comprised of multiple exogamous clans or similar exogamous groups may form. As the larger, more ceremonially active settlements in a region comprised of exogamous settlements grow by attracting more marital alliances the ensuing crisis in exogamy may result in decisions to fission. Having enough members, the previous lineages within the exogamous group may then split off to form multiple exogamous groups. However, rather than establishing new settlements, the newly formed clans or similar exogamous groups remain in one settlement (Figure 3-2). By maintaining Crow-Omaha kinship and marital alliances, some of the new exogamous groups within the settlement become disproportionately large.

Recently, Knight (1998) describes the similarities between Moundville's community patterns and Chickasaw tribal camps and concludes that Moundville consisted of distinct kin groups spatially arranged in a sociogram. Wesson (1998) views Moundville as reflecting Creek myth, architecture, and community patterns. The Chickasaw camps and the Creek cosmology and spatial patterns are by no means unique in societies with Crow-Omaha kinship and marital alliances. As tables 3-2, 3-3, and 3-4 demonstrate, settlements comprised of multiple exogamous groups typically had formal community patterns with each clan having a specific location in the settlement. Additionally, the Plains societies that did not have formal community patterns had ceremonial camps (like the Omaha and Chickasaw camps). Moundville is more representative of the permanent multi-clan settlements than the temporary ceremonial camps in societies lacking formal settlements. Because some of the kin groups at Moundville were larger than others and had more ceremonial activities than others (e.g., Knight 1998), the continued Crow-Omaha process in disproportionate growth among the different kin groups at the site may be inferred. In the case of the Southeastern societies, resource availability for new settlements or concerns over security may have guided decisions to either fission and establish new settlements or to fission into exogamous groups that remained within the

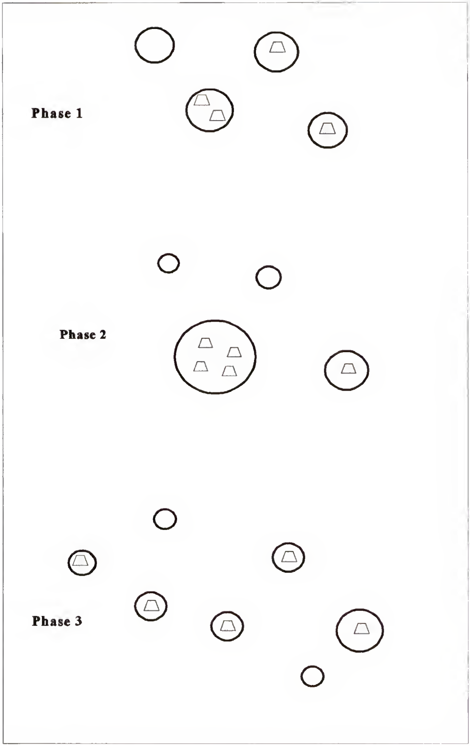


Figure 3-1. Hypothetical diproportionate growth among exogamous settlements and fissioning after “crisis in exogamy.”

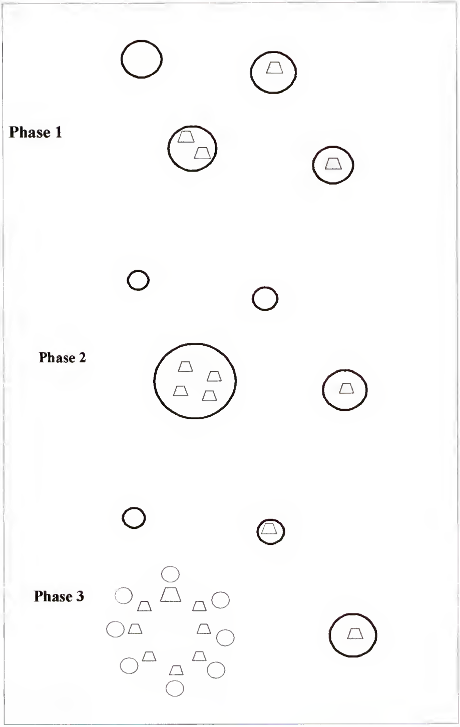


Figure 3-2. Hypothetical disproportionate growth among exogamous settlements and large settlement fissioning into multiple exogamous groups remaining at the same settlement.

same settlement. Another possible solution to a crisis in exogamy is the abandonment of Crow-Omaha marriage rules (e.g., Figure 2-4), which can transform a society's marital alliances, social structure, community patterns, social organization of ceremony, surplus production, and exchange. In short, this would entail a complete transformation in political economy.

Complex Alliances and "House" Societies

Although found in all world regions, complex marital alliances are most common among African and Indo-European societies (Fox 1967:227). Unlike elementary and Crow-Omaha strategies, there are no particular rules on exogamy or potential marriage pools other than a taboo on marrying consanguines (Figure 2-1). People are therefore distributed widely around the society (Fox 1967:227). This category can result in what descent theory recognizes as cognatic descent, bilateral descent, neolocal residence, and bilocal residence. "Genealogical amnesia" may even occur among individuals emphasizing opportunities over obligations towards parents and grandparents (Arcand 1989).

Complex alliances are found in "house" societies (Leví-Strauss 1982, 1987). Although some definitions have been provided for "houses" that could include every society in the world, I agree that the more simplistic views originally provided by Lévi-Strauss (1982:172-187, 1987:151-169) are more useful (Gillespie 2000c). In general terms, Lévi-Strauss' and others' notion of a "house" include a social unit ranging in scale, perpetuation of the "house" across generations for maintaining the estate, and negotiated membership for access to the estate through both multilateral descent and affinal ties (eg., Gillespie 2000a, 2000c). I specifically use the Yurok as a model for house societies. Among them, "houses" were extended families that competes with other houses.

However, each "house" functioned as an estate that transcending generations. Membership was accessed through residence affiliation, which could be negotiated. In "house societies" individuals often use those multiple relations to relocate to other households, making household and settlement membership fluid (Rosman and Rubel 1971: 194-196). Most of the societies with complex marital alliances in the California sample were "house societies," including the Yurok as described by Leví-Strauss (1982, 1987). Few, if any, of the Southwest, Plains, and Southeast societies with complex marital alliances had those characteristics. Instead, the Southwest, Plains, and Southeast societies with complex marital alliances shared bilateral descent, had no reckognized kinship group above the level of the family, and had no specified potential marriage pools.

Settlement Composition and Community Patterns

Settlements in societies having complex marital alliances are comprised of multiple families (nuclear and/or extended). There are no rules on settlement exogamy or endogamy. Neolocality is sometimes a preference, resulting in small households. Bilocal extended families and more formal "houses" involve larger households. Individuals and families may change locations, producing fluidity in membership. In some societies, marital alliances emphasize geographic distance, which provides resource security.

Given the lack of collective relations within settlements in a complex marriage system, there are no formal site layouts, which is demonstrated in tables tables 3-2, 3-3, and 3-4. In the California "house" societies, villages are informally arranged aggregations of residences. Eight of the Southwestern societies with complex marital alliances occupied pueblos, which are formally planned settlements. In each of these cases, however, the settlements were reoccupied by refugees from multiple societies, under intensive forces of acculturation, or had populations so diminished that exogamous clans were historically lost. Therefore, the formal pueblos in those eight societies cannot be associated with the complex marital alliances. The remaining Southwest and many of the Plains societies with complex marital alliances had scattered residences (*rancherías*); some spread out so far that they overlapped with other similar "villages." Other Plains societies with complex marriage systems had aggregated settlements, yet with no formal arrangements.

Neolocality should result in small households at archaeological sites. Bilocal extended families or "houses" should result in larger households at archaeological sites. In the specific case of "houses," the individual structures are expected to have internal formal areas as among the actual structures of the Northwest Coast "house" societies (e.g., Rosman and Rubel 1971). Additionally, Tringham (2000) associates enduring domestic structural complexes with "houses," which suggests a feature distinctive from bilocal extended families in non-house societies with complex alliances. Domestic architecture in the Neolothic era of Southeastern Europe is shown to have maintained attachment to specific locations, despite destruction, rebuilding, and architectural additions, which conform to the expected endurance of the house across generations (Tringham 2000). Therefore, architectural permanence and locations for ceremonial activities should be associated with "houses" in "house societies."

Ceremony, surplus production, and exchange

Because there are no predetermined marriage pools, marital alliances are competitive. Also, because there are no larger exogamous groups, the family is therefore responsible for securing gifts and food surplus for the marriages of sons and daughters.

Without the collective relations found in Crow-Omaha clans, leaders must *sponsor* the larger ceremonial events with their own family's surplus.

Similarly, in "house" societies, each "house" competes with other "houses" within its village and with "houses" in other settlements. To attract alliances, each "house" must therefore sponsor its own competitive feasts and ceremonies through its own surplus production and exchange for rare items. In actuality, the higher ranked houses compete more intensively than the lower ranked houses and occasionally sponsor ceremonies, feasts, and dances for their village in ostentatious displays of wealth. Therefore, ranking is based merely on household *wealth*. This is also the condition under which leaders *must* be "ostentatious" or "aggrandizing" in order to obtain or maintain status.

Ranking

In contrast to the ranking among exogamous groups in Crow-Omaha systems, individual families or "houses" are ranked in complex systems. However, ranking in societies with complex alliances is based on family or "house" wealth and ostentatiousness, rather than on managing collective competitive ceremony. This is because each family or "house" is in competition. Furthermore, where village-wide ceremonies or feasts take place, these are typically sponsored by the leading family or "house" to legitimize its status, which is based on controlling more secular affairs (e.g., village territories and resources, resolving disputes, etc.).

In societies with elementary and Crow-Omaha alliances, the exogamous groups collectively provide for their members. However, in societies with complex marital alliances, patron-client relations replace communal "social security" and "insurance" against poverty. That is, in the absence of an exogamous descent group's collective surplus, many commoners must enter debt relations with wealthier houses to finance marital alliances and other important life ceremonies.

Summary

Crow-Omaha alliances involve exogamous clans with no specified clan in which to find a spouse. Clans compete with other clans in ceremonial competition and exchange, through collective surplus production, to attract favored marriage alliances. More ceremonially prominent clans have greater prestige, resulting in the attraction of more alliances than do the less ceremonially prominent clans. Because the children of marriages belong to the clan of the father (in an Omaha system) or the mother (in a Crow system), the more ceremonially active clans grow disproportionately large by attracting more spouses. Uninterrupted, this process leads to a "crisis in exogamy" for the large clans because there are too few potential spouses among the remaining clans for its members. Crow-Omaha societies may have either individual clan settlements (exogamous settlements) or large villages with multiple exogamous clans. In both cases, Crow-Omaha settlements correlate with formal community patterns, which include central plazas and/or ceremonial features in communal spaces. Exchange relations are expected to be among all clans, reflecting the marriage alliances. More ceremonially active clans should be the largest and should demonstrate continued positive growth because they attract more marital alliances. Less ceremonially active clans are expected to be smaller and to remain small or diminish in size through time.

Societies with complex alliances lack exogamous groups and have no marriage rules other than the family incest taboo. House societies involve complex alliances due to the similar lack of marriage rules, but are distinct in that the "house" is a formal estate that transcends generations. Settlements in complex systems involve family or "house" aggregates with no formal community patterns. Because there is no larger exogamous group organization, the family or "house" is independently responsible for its ceremonial affairs and associated surplus. Therefore, there is a general absence of communal spaces and structures for ceremonial activities. Among the more prestigious families or "houses," there is an emphasis on wealth to accentuate social distinction and attract marital alliances with other prestigious families or "houses." Because the individual families or "houses" are independently responsible for managing surplus and ceremonies for their own marriage alliances, leadership is based more on secular affairs. However, leaders do sponsor ceremonies for their settlements in ostentatious acts of legitimation, which also serve to competitively attract alliances with other leaders. In Chapter 3, I have described the logic for the two marital alliance systems originally proposed by Lévi-Strauss (1969), and elaborated upon by Rosman and Rubel (1979), and offered other observations and archaeological correlates for the two systems. In the following Chapters, these archaeological correlates are used to address specific archaeological problems concerning society and transformations among the Taíno of the Greater Antilles, the Hohokam of south-central Arizona, and the Archaic period mound-building cultures of the Lower Mississippi Valley.

CHAPTER 4
THE HOHOKAM

The Hohokam, who inhabited much of the Sonoran Desert region, form one of the major archaeological cultures of the U. S. Southwest. Definitions of Hohokam culture, typically include red-on-buff and later polychrome pottery, pithouse and later above-ground adobe domestic architecture, ballcourts, platform mounds, irrigation agriculture, and widespread exchange systems. The Phoenix Basin, which is emphasized here, comprises the Lower Salt and Middle Gila rivers and their confluence at the modern city of Phoenix, Arizona (Figure 4-1). The Holocene floodplains, once lined by riparian vegetation, provided irrigable lands. Along the floodplain margins are Pleistocene floodplain terraces and low sloping colluvial fans where the paloverde-cactus scrub series dominates the landscape. Irrigation agriculture was a major subsistence strategy practiced on river floodplains. Ethnographically, more than 250 native plant species also were utilized (Fish and Nabhan 1991:41). Most hunting and gathering away from settlements could be done within a single day (Fish and Nabhan 1991:31). A variety of raw lithic materials were available to the Hohokam in the mountain ranges (e.g., Bostwick and Burton 1993), river beds, and through long-distance exchange. Recent research suggests a diversified subsistence base throughout Hohokam culture history (e.g., Anderson and Smith 1994:246; Bayman 1997; Bohrer 1991; Fish and Nabhan 1991; Miller 1994:202-203; Szuter 1991). A major source of debate is the Late Formative period-Classic period transition.

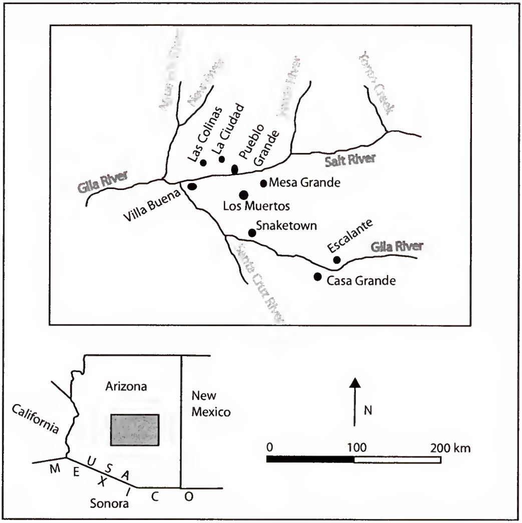


Figure 4-1. Location of major Phoenix Basin Hohokam sites.

In the Late Formative period (AD 700-1150), farmsteads, hamlets, and villages were located along canal networks forming numerous "irrigation communities." The Late Formative period was a time of increased intersettlement interaction and population growth. Over 225 ballcourts were built throughout central and southern Arizona by the end of the Late Formative indicating an increase in the hosting of intersettlement collective public events as the context for marital alliances and exchange (Doyel 1991a:247; McGuire and Howard 1987:130; Wilcox and Sternberg 1983). Villages had planned circular layouts with open plazas (likely for hosting dances). Mortuary customs involved elaborate public cremation rituals, which also involved intersettlement interaction and planning (McGuire 1992:48). At some sites, large ceremonial structures capable of housing many people were constructed (e.g., Wilcox et al. 1981:182). Some villages had areas with numerous specialized pit features interpreted to represent public ceremonies (e.g., Bostwick and Downum 1994:322; Haury 1976:155-156; Wilcox et al. 1981:145). Throughout the Late Formative period, the hosting of intersettlement events necessitated surplus labor for feasts, dances, and nonutilitarian artifact production and exchange. Even figurines represent ballgames (Wilcox and Sternberg 1983) and cremation rites (Thomas and King 1985) illustrating the importance of ceremonial events that involved regional interaction.

Interaction among settlements and irrigation communities declined during the Late Formative-Classic period transition. With few exceptions, ballcourts ceased to be used at the end of the Late Formative period. Alongside this gradual change was the shift away from circular villages with central plazas, cremation rituals, and other public ceremonies. Because ballcourt-related events, feasts, and and other collective ceremonies were the contexts for intersettlement exchange and marital alliances, their abandonment has important implications for social relations.

In contrast to the interactive nature of Hohokam society in the Late Formative period, the transition into the Classic period witnessed the beginning of patterns suggesting community isolationism and interhousehold competition. By the early Classic, domestic compounds had their own ritual spaces surrounded by compound walls (Doyel 1991b:253; Sires 1987). The shift to inhumation burials, located adjacent or within compounds, demonstrate a shift from the elaborate public planning of cremations to compound-focused ritual. Furthermore, there was far more investment in mortuary assemblages at all compounds than in the Late Formative period illustrating competition among those domestic units. There are no indications of other public ceremonies. Even the platform mounds that were built in the Classic period and adjacent domestic compounds (presumably elite residences) were surrounded by large enclosing walls for restricted access and privacy (e.g., Bostwick and Downum 1994:341-344; Crown 1991:151-152; Gregory 1987). Along with these shifts away from public interaction, Rice (1998) suggests that settlements within irrigation communities were competitive but that they formed alliances when competing with other irrigation communities. Van Keuren et al. (1997) show a decline in intersettlement exchange of pottery. Abbott (2000:170) also concludes through pottery analyses that there was less interaction among irrigation communities along the Salt River at the beginning of the Classic period. Many of the crafts that were widely circulated through intraregional exchange were no longer produced (Doyel 1991a:239) or were concentrated at platform mound sites (Bayman 1999:275). Local obsidian sources could no longer be relied upon due to competition, and there was a shift toward acquiring obsidian from long-distance sources (Bayman and Shackley 1999). Possible evidence for conflict also correlates with this transition (e.g., Rice 2001; Wilcox and Haas 1994:231-232). There was increased elite control over craft specialization and exchange (McGuire and Howard 1987:137). Although canal system management was likely by elites in the Late Formative period, the Classic period locations of platform mound sites near major canal intakes implies increased elite control over water distribution (Dean 1987:260; Gregory 1987:209).

Many of the changes that began in the Sacaton phase at the end of the Late Formative period and characterizing the Soho phase of the Early Classic period are viewed as a shift from a religious base to a secular base (Doyel 1976, 1980:36; 1991a:239), from public corporate ritual to ostentatious privatized ritual, and from interaction among irrigation systems to isolationism. Others argue the Classic period changes were a result of social ranking. Previous interpretations of Hohokam social hierarchy have included egalitarian, big men, and ranked societies for the Late Formative period. Likewise, interpretations on Classic period social hierarchy have ranged from egalitarian to stratified (McGuire 1992a:2). Much of the disagreement is due to the emphasis on different lines of evidence or different conceptual implications of evidence for ranking.

Hohokam research typically includes environment, subsistence, and irrigation as explanations for cultural development and change. Catastrophe theory has received a great deal of attention lately as information on canal histories and climatological data have suggested major flood events that destroyed canal intakes or entire canal systems (e.g., Graybill 1989; Huckleberry 1999; Nials et al. 1989). However, others doubt that flood damage to canal intakes could have caused such major changes to Hohokam society (e.g., Dean et al. 1994; Masse 1991). Most recently, Waters and Ravesloot (2001) argue that Hohokam culture developed because of periods of floodplain stability and that the Classic period changes were a result of climatological instability whereby floods caused river landscape changes. However, Ensor et al. (2003) argue that a mosaic of political ecological strategies already underway in the Late Formative, in concert with environmental events, more likely contributed to the landscape changes and differences in vulnerability to disasters among different social groups. Additionally, it should be noted that the Crow-Omaha and complex alliances in the ethnographic survey (Chapter 3) cross-cut environments and subsistence strategies indicating that kinship and marriage systems, and hence political economies, are not determined by environment and subsistence. Here, I focus on how the marital alliance perspective may provide a social model for the Late Formative-Classic period transition.

The following construction of Hohokam kinship, marital alliances, and political economy uses multiple lines of evidence (community patterns, ceremonial organization, surplus production, exchange, settlement ranking, and demography). I interpret the Late Formative as a period characterized by Crow-Omaha political economy and that disproportionate growth rates in successful exogamous settlements led to a crisis in exogamy near the end of that period. More detailed descriptions of the Snaketown, Pueblo Grande, and La Ciudad sites are given to illustrate how larger settlements exhibited greater ceremonial functions and continued growth while the smaller and less ceremonially-organized settlements decreased in size. The Classic period is depicted as representing a transformation into a “house” society. The Classic period Pueblo Grande components are described in more detail to highlight the changes.

Late Formative Period

Community Patterns and Settlement Composition

The first trash mounds, indicative of sedentism, date to the Snaketown phase (AD 700-750). Domestic structures at the early hamlets were in clustered arrangements suggesting extended families. In the Gila Butte phase (AD 750-900), pithouses were arranged in courtyard groups (several pithouses facing a common space, which was maintained throughout rebuilding episodes and pithouse additions) (Doyel 1991a:248-249;

Gregory 1991; Howard 1985; Wilcox et al. 1981). Courtyards had associated trash mounds, work areas, and *hornos* (large roasting pits with oxidized to vitrified walls). During the Santa Cruz phase (AD 900-950), many of the larger settlements had circular shapes surrounding empty plazas, which were likely locations for dances and other public events. More ballcourts and capped mounds were built (Wilcox and Sternberg 1983). The Sacaton phase (AD 950-1150) is marked by large village growth and aggregation of courtyards into "segments" (Crown 1991:149-150) surrounding the central plazas. The Sacaton phase is thought to represent increased social complexity as seen in community patterns, distributions of exotic items, craft specialization, a multiple-tier settlement hierarchy, interregional exchange, greatest construction and extent of autonomous irrigation systems, and the greatest geographic area occupied (Doyel 1980:27-31, 1991a:250-252; Nicholas and Neitzel 1984: 173-174;Wilcox 1979:105-106).

Community patterns among major sites in the Phoenix Basin share the expected patterns for Crow-Omaha alliance systems. The locations of domiciles surrounding the circular or elliptical central plazas reflect the formality in community patterns found among Crow-Omaha societies in the ethnographic survey. Additionally, settlements were comprised of multiple courtyard groupings ("segments"). The segments may reflect either settlements comprised of multiple exogamous groups or lineages within exogamous settlements.

Based on the low numbers of courtyards within each "segment," the population sizes of the "segments" would be similar to those of lineages in the ethnographic literature used for Tables 3-2, 3-3, and 3-4. Furthermore, the low estimated populations for entire villages (e.g., Wilcox 1991: 261-262) are more similar to those of clans than of the large multi-clan villages in the ethnographic survey (in many cases over 1000 persons). Therefore, I favor the interpretation that the Late Formative Hohokam settlements resemble the expectations for exogamous groups with internal lineages in a Crow-Omaha society.

Ceremony, Surplus Production, and Exchange

There was a florescence in collective ceremony, food surplus production, surplus craft production, and exchange in the Late Formative period. The earliest ballcourts for intersettlement competition were built in the Gila Butte phase, in addition to public capped mounds, mortuary structures, and ceremonial spaces. There were central cemeteries and crematoria, suggesting settlement-wide affiliation, and discrete cemetery and crematoria areas, also suggesting affiliations with courtyards and lineages (e.g., Anderson 1986). Some villages had areas with numerous pits interpreted to represent public ceremonies (e.g., Bostwick and Downum 1994:322; Haury 1976:155-156; Wilcox et al. 1981:145). The central plazas, the ballcourts, and other ceremonial loci at sites indicate that ceremonies were important to intersettlement relations. Over 225 ballcourts were built throughout central and southern Arizona by the end of the Late Formative indicating an increase in the hosting of intersettlement public events, which have been interpreted as the context for exchanging people and goods (Doyel 1991a:247; McGuire and Howard 1987:130; Wilcox and Sternberg 1983). Sacaton phase figurines represent ballgames (Wilcox and Sternberg 1983) and cremation rites (Thomas and King 1985), which also illustrate the importance of these intersettlement ceremonial events.

Doyel (1991b:246) suggests overlapping spheres of exchange in prestige, utilitarian, and social paraphenalia. Intrasite shell craft production and distribution suggests exchanges among all members of settlements rather than exclusively among leaders (Seymour 1988). Shell was likely obtained from the desert Papagueria to the west, and crafted and distributed within the Hohokam region at intersettlement ballcourt ceremonies (McGuire and Howard 1987:130). Additional symbolic crafts such as pallettes, censers, and stone rings are prevalent at practically all Late Formative sites. Abbott (2000) and Van Keuren et al. (1997) both conclude widespread intersettlement exchange in pottery. The florescence in crafts and their distributions among all courtyards indicate an important component of intersettlement relations.

Expanding irrigation agriculture, an increase in storage facilities, and an increase in *hornos* suggest intensified food production and food processing, possibly for feasting in addition to meeting the subsistence needs for increasing populations. Although the earliest irrigation canals date to the Early Formative period, there was a significant expansion in numbers of canals and areas cultivated with irrigation in the Late Formative period. The greatest expansion in canals occurred in the Sacaton phase (Nicholas and Neitzel 1984:173). Motsinger (1994) and Seymour (1994:392) demonstrate an increase in storage facilities and storage space through time in the Late Formative period. Although *hornos* were used in the Early Formative period, they were more numerous and larger during the Late Formative period, signifying an increase in cooking large amounts of foods. The *hornos* may suggest collective organization of cooking for regular consumption and/or for feasts. The formal community patterns, proliferation of intersettlement ceremonies, surplus production, and widespread intersettlement exchange in the Late Formative period match the expectations for exogamous settlements in Crow-Omaha societies.

Ranking and Demography

Archaeologists have long recognized a settlement size hierarchy within the region and within irrigation communities (Gregory 1991:160-162; Nicholas and Neitzel 1984). Furthermore, the number and sizes of ballcourts at sites illustrate settlement hierarchies along a continuum from hamlets with no ballcourts to large villages with up to five ballcourts (Villa Buena) (Wilcox and Sternberg 1983). There does seem to be a correlation between the settlement size and the number of ballcourts. Likewise, the larger sites have the circular community patterns formed by central plazas, which smaller settlements lack. As illustrated in the site comparisons below, the larger sites also tend to have a broader range of ceremonial activities represented than do the smaller settlements. In addition to fewer ballcourts and the lack of central plazas, the smaller sites appear to have had a more limited range in types of ceremonial activities (see site comparisons below). These patterns also correspond to the expectations for exogamous group size differences in Crow-Omaha societies.

Previous interpretations of Hohokam social hierarchy have included egalitarian, big men, and ranked societies for the Late Formative period (McGuire 1992a:2). In the more detailed descriptions of Snaketown and Pueblo Grande below, there are clear indications of status ranking within settlements. As explained above, internal ranking in Crow-Omaha societies may occur whereby leaders manage the collective surplus of the exogamous group.

I now turn to more detailed site histories for Snaketown, Pueblo Grande, and La Ciudad to illustrate the association between formal community patterns and ceremonial organization at the larger, higher ranked settlements (Snaketown and Pueblo Grande) during the Late Formative period. La Ciudad exemplifies a mid-sized settlement that exhibited less ceremonial organization and gradually decreased in size until abandonment at the beginning of the Sacaton phase. These sites were chosen because they have been intensively investigated.

Snaketown

Snaketown was a large site located on the Gila River floodplain along a canal system first constructed in the Snaketown phase. Dispersed pithouses and farmsteads were present during the Early Formative period surrounding an empty plaza (Wilcox 1991). The first trash mounds and integrative community architecture (a capped mound) date to the Snaketown phase (Wilcox et al. 1981:145). Domestic structures were clearly patterned in clustered arrangements (Wilcox et al. 1981:Figure 34) suggesting extended family households surrounding the central plaza. In the Gila Butte phase the central plaza was surrounded by more formal courtyards, the capped mound, Ballcourt 1, and a floor with "several linear arrays of hearths that may have been used in connection with community ceremonial activities" (after Haury 1976:155-156) (Wilcox et al. 1981:145, Figure 34). This community pattern continued into the Santa Cruz phase when an outer habitation zone grew in size, the number of trash mounds increased, a second mound was capped, and a crematory floor was built over the floor with the linear arrangements of hearths (Wilcox et al. 1981:145-146, Figure 34) (Figure 4-2).

Wilcox (1991:261-262) estimates no more than 300 people lived at Snaketown during the Sacaton phase. More courtyards and individual pithouses encircled the plaza, two additional mounds were capped with caliche, a second ballcourt was constructed, and a small platform mound was constructed and repeatedly resurfaced (Wilcox et al.

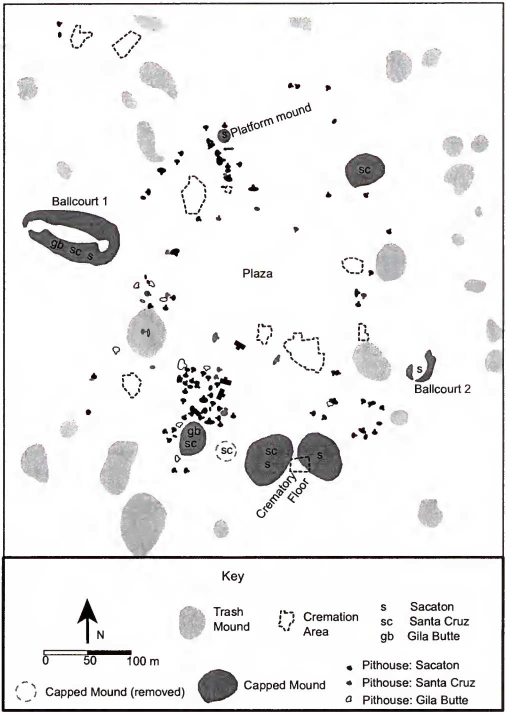


Figure 4-2. The Snaketown site during the Late Formative period. Redrawn from Wilcox et al. (1981).

1981:135-143). In addition to these ritual features and the central plaza, three large pithouses (represented as rectanglular structures in Figure 4-2) were built on the southwest side of the plaza. The three large houses had benches along their walls, which are suggested to have seated between 50 and 80 adults (Wilcox et al. 1981:182). One contained several mountain sheep horns and earlier vessels on its floor (Wilcox et al. 1981:138). All three structures were burned, which was rare at Snaketown (Wicox et al. 1981:138).

At the south side of the central plaza, six courtyard groups (Sires 1987:177) were tightly clustered and adjacent to two caliche-capped mounds. This lineage also produced pottery and was the location of most finished turquoise obtained through exchange (Seymour 1988:826). At the north side of the plaza were two or three aggregated courtyards adjacent to the only other caliche-capped mound at the site. This second lineage was the primary location for shell ornament production and finished Mesoamerican crafts. Shell craft production remained concentrated in the lineage's pithouses over generations and finished shell crafts in cremation burials also were concentrated there possibly indicating an inherited part-time specialization (Seymour 1988:822-823). Storage features were in all or most of the pithouses in this group, including nearby specialized storage structures, whereas other pithouse groups had less storage (Seymour 1994:393). Wilcox et al (1981) also noted the relationship between the storage structures and the wealthier burials in the lineage's cemetery. They suggested the storage was related to managing or sponsoring feasts and ceremonies. Finished shell crafts were dispersed in light frequencies throughout the site, which Seymour (1988:824) interprets as reflecting community-wide exchanges with other settlements. The formal community pattern, the abundance of intersettlement ceremonies (at the plaza, ballcourts, crematorium and central cemetery, and large specialized structures), and intersettlement exchange at Snaketown reflect the expectations for an exogamous settlement in a Crow-Omaha marital alliance system.

Pueblo Grande

Pueblo Grande was a major site located along the north side of the Salt River at the headgates of four large irrigation canal systems ("Park of Four Waters"). The site was a hamlet with few small residential clusters during the Gila Butte and Santa Cruz phases. There was a clearly defined large cremation burial area in addition to isolated cremations. A large founding pithouse in an informal residential cluster of three pithouses, stood out as having a variety of ritual artifacts (a stone censer, two ceramic censers/mortars, a stone plumet, galena and hematite) and shell bracelet fragments with tools for their manufacture (Bostwick and Downum 1994:304). This pithouse may represent leadership in ritual for the small community. The large cremation area suggests communal affiliation through mortuary customs. The only cremations adjacent to pithouses were associated with the cluster associated with the large pithouse. Another indication of communal ritual is a mountain-sheep horn cremation, including at least four sets of horns and a variety of artifacts and effigies (Bostwick and Downum 1994:304-310).

There was marked population growth into the Sacaton phase. Up to nine pithouse groupings with larger founding pithouses are apparent (Figure 4-3). The larger pithouses also were associated with censers illustrating an internal residential group hierarchy in ritual responsibilities (Bostwick and Downum 1994:386). Overlapping features and other preservation problems in discerning pithouse entry orientations for many of the structures at Pueblo Grande make it difficult to determine how many are associated with courtyards. Nevertheless, most groupings do have a courtyard space between the pithouses.

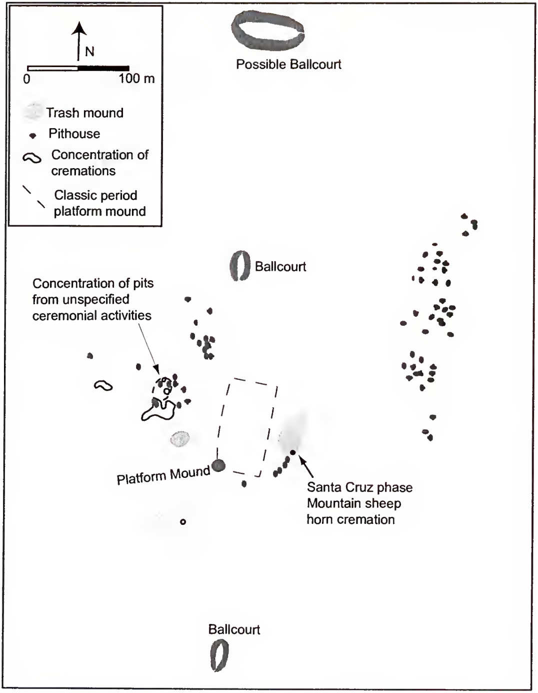

N
0
100 m
Trash mound
Pithouse
Concentration of cremations
Classic period platform mound
Possible Ballcourt
Ballcourt
Concentration of pits from unspecified ceremonial activities
Platform Mound
Santa Cruz phase Mountain sheep horn cremation
Ballcourt

Figure 4-3. The Pueblo Grande site during the Sacaton phase. Compiled and redrawn from Mitchell (1994a) and Bostwick and Downum (1994).

The Sacaton phase pithouse courtyards, central cemetery area, and trash mounds form an ellipse around an open plaza in the Late Formative (the site's large platform mounds of the Classic period obscure this location). Also surrounding the plaza were two ballcourts and one possible ballcourt. One of the ballcourts and the possible ballcourt were historically destroyed or damaged (Bostwick 1994:131). The preserved and excavated ballcourt on the immediate north side of the plaza was constructed during the Sacaton phase, illustrating another public ritual at the site. Given the small population at the site in prior phases, and the general lack of ballcourt use in the Classic period, it is tempting to associate the two destroyed ballcourts with the Sacaton phase. An area having nearly four dozen pits, most of which date to the Sacaton phase, was located on the west side of the later platform mound. The pits have been interpreted as functioning for cremation rites, public curing ceremonies, saguaro wine-making for public ceremonies, or public consecration rituals (Bostwick and Downum 1994:322). Whichever occurred there, the area indicates a communal spatial location adjacent to the plaza for unspecified ceremonial activities. A small platform mound, similar to the one at Snaketown, was built at the south end of the plaza (Bostwick and Downum 1994: 335). The central cemetery continued to be used. However, several burials were dispersed among the courtyards (Bostwick and Downum 1994:320). One young adult cremation in the southern trash mound stands out as having an unusual abundance of accompaniments (Bostwick and Downum 1994:320). In summary, Pueblo Grande had a formal site structure and a number of collective intersettlement ceremonies surrounding a plaza. The marked growth in numbers of courtyards in the Sacaton phase likely reflects successful ceremonial competition that attracted marital alliances, resulting in the growth of the settlement.

La Ciudad

La Ciudad (figures 4-4 and 4-5) was located along a main canal north of the Salt River near Pueblo Grande. The growth and activities at the site, have been described by Henderson (1987a, 1987b), Kisselburg (1987), McGuire (1992a), and Rice (1987) whose analyses contributed to much of our understanding of Hohokam courtyards. Kisselburg (1987) concluded that there were no differences in ritual and nonritual craft distributions among courtyards but that schist craft manufacturing was done by only one of the courtyards. Founding larger houses (Rice 1987) indicate internal courtyard hierarchies. McGuire (1992a) interpreted ranking in mortuary items as reflecting actual hierarchy within courtyards that contrasted with non-distinctive architecture of courtyard heads.

Unlike Snaketown and Pueblo Grande during the Late Formative period, there was no formal settlement structure above the level of courtyards and lineages at La Ciudad. Furthermore, there is less evidence for the hosting of competitive ritual compared to Snaketown and Pueblo Grande. Instead, the settlement is comprised of several courtyards and lineages scattered in an unplanned manner along the southwest side of the main canal. The following descriptions of structures, courtyards, and spatial patterns for each phase are derived from Henderson (1987b:83-99) unless otherwise cited.

In the Gila Butte phase, one pithouse cluster was present in the Brill Locus. The Belleview Locus had three pithouses in the early Gila Butte phase, which were replaced by one single structure in the middle portion of the phase, and one structure in the late portion of the phase. In the Moreland Locus, a founding large pithouse was constructed at the end of the Gila Butte phase.

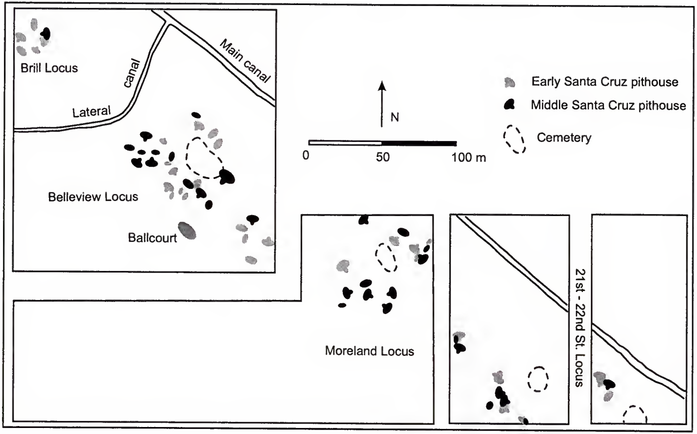


Figure 4-4. The La Ciudad site during the Early and Middle Santa Cruz phase. Compiled and redrawn from Henderson (1987: figures 5.6 and 5.7).

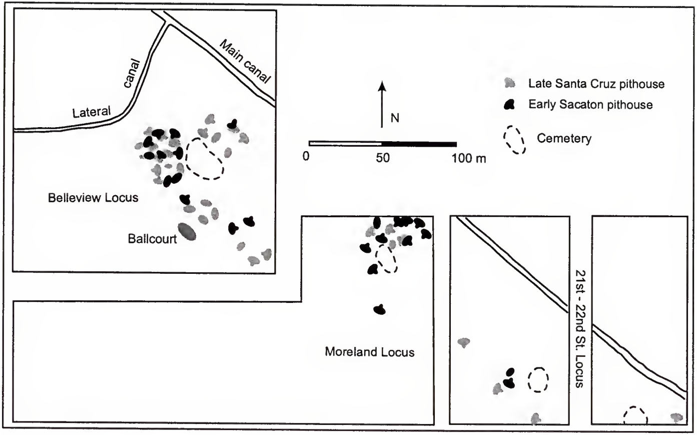


Figure 4-5. The La Ciudad site during the Late Santa Cruz and Early Sacaton phases. Compiled and redrawn from Henderson (1987: figures 5.8 and 5.9).

In the early Santa Cruz phase, the pithouse cluster in the Brill Locus had a more formal organization suggesting a courtyard. The Belleview Locus had one courtyard group and one less formal residential group adjacent to a cemetery. The site's small ballcourt was constructed at this time, adjacent to the less formal group and cemetery.

Two pithouse clusters were present in the 21st-22nd St. Locus, both of which had cemeteries. One house was constructed in the Moreland Locus at the end of the early Santa Cruz phase. The three pithouse clusters and one courtyard each had its own cemetery and were scattered linearly along the canal. The small ballcourt was spatially associated with only one pithouse cluster. Unlike Snaketown and Pueblo Grande, these patterns suggest a lack of formal community organization above the level of courtyards and far less hosting of major ceremonies.

The Brill Locus courtyard continued with new houses in the middle Santa Cruz phase. In the Belleview Locus, there was a courtyard that was rebuilt twice within the phase with an adjacent cemetery. In addition to the Belleview Locus ballcourt, a crematorium was constructed on the southeast edge of the cemetery. The Moreland Locus had two contemporaneous courtyards on opposite sides of its cemetery in addition to a crematorium (McGuire 1992a:150). The 22nd St. Locus pithouse cluster was reduced to two structures on the north side of its cemetery. The 21st St. Locus pithouse cluster continued to be occupied with new houses. The Belleview Locus, with three courtyards and the ballcourt adjacent to a shared cemetery and crematorium, and the Moreland Locus, with two courtyards and a common cemetery and crematorium, suggest the formation of lineages comprised of multiple extended families (McGuire 1992a:148). The Belleview Locus was the largest, suggesting relative success in attracting marital alliances by hosting ballgames and large mortuary rituals. Unlike Snaketown and Pueblo Grande at this time, there is no indication of collective ceremonial organization above the level of the lineages.

By the end of the Santa Cruz phase, the Belleview Locus grew to include six courtyards surrounding its cemetery, crematorium, and adjacent ballcourt. This further suggests its role as the more successful lineage within the site, which likely had to do with the hosting of ballgames for competitive ritual. By this time, there was only one other courtyard, which was located at the Moreland Locus.

In the early Sacaton phase three courtyards remained at the Belleview Locus and two were present at the Moreland Locus. The ballcourt was abandoned and filled (McGuire 1992a:162). Within the early Sacaton phase, La Ciudad was largely abandoned and taken over by fields for the nearby growing site of Casa Buena (McGuire 1992a:162).

Unlike Snaketown and Pueblo Grande, La Ciudad had an informal site plan arranged along the course of the main canal. The settlement lacked ceremonial organization above the lineage scale. There was no evidence for ranking above the level of the courtyard heads (McGuire 1992a). There was no central plaza for hosting dances (although less formal dances could have been conducted elsewhere). There were no common cemeteries above the lineage scale or other common ceremonial activity areas. The ballcourt was spatially associated only with one lineage. The presence of only one ballcourt indicate La Ciudad also had a lower ranking in the regional settlement hierarchy. Also significant is that La Ciudad was gradually depopulated in the early Sacaton phase at the same time the small ballcourt fell into disuse. La Ciudad lacked all characteristics that were advantageous in a political economy based on successful collective competition for marital alliances. My interpretation of these patterns is that La Ciudad was less successful than settlements like Snaketown and Pueblo Grande in staging intersettlement feasts and ceremonies and therefore attracted fewer marital alliances with other groups.

Classic Period

The transition from the Sacaton phase to the traditionally defined Classic Period has been a topic of controversy. Originally, the Classic Period was thought to represent the greatest levels of population and social complexity in the Phoenix Basin. Doyel (1976, 1980:36, 1991b:239), however, considers the transition to be one from a religious base to a secular base. Additionally, there was increased elite control over craft specialization, exchange, and large-scale ceremonies (McGuire 1992b:207; McGuire and Howard 1987:137). Many of the following shifts actually began to occur in the latter part of the Sacaton phase (Doyel 1998) suggesting a gradual transformation rather than an abrubt change in Hohokam society.

Community Patterns and Settlement Composition

There was a major change in community patterns in the Late Formative-Early Classic period transition. In the Soho Phase (AD 1150-1300), the large settlements no longer maintained circular plans around central plazas. Instead, the pithouse courtyard groups were scattered in unplanned manners at major settlements. The pithouses were gradually replaced by above-ground post-reinforced adobe-walled houses. Like the prior courtyard groups, the above-ground residential structures formed residential groups for extended families (referred to as "compounds"). However, the new residential compounds were surrounded by compound walls (Doyel 1991a:253; Sires 1987) illustrating the importance of private extended family space (Doyel 1991b:247) and possibly indicating social tensions among compounds. Rice (2001:316-317) suggests that in addition to emphasizing distinct social spaces around the compounds, the walls also could have functioned for defense against other compounds within the same settlements.

Platform mounds were much larger than in the Sacaton phase and had associated residential compounds. The larger settlements typically had one or two platform mounds, each with an associated compound (either on the platform mounds or immediately adjacent to them), which are typically considered by Hohokam archaeologists to be compounds of leaders. The platform mounds and their compounds also were surrounded by massive enclosing walls (e.g., Bostwick and Downum 1994:341-344; Crown 1991:151-152; Gregory 1987) for private social space and/or defense (Rice 2001:317-319).

The informal community plans and compound architectural characteristics continued until the end of the Civano phase (AD 1300-1350?). During that phase, the larger settlements continued to grow substantially as more wall-enclosed compounds were founded that extended the areal extent of the scattered layouts. Many of the sites had compounds scattered linearly along canals (Gregory 1987:202-203). Such informal community patterns match those expected for complex marital systems.

The Classic period community patterns markedly differ from those of the Late Formative period. There were no central plazas and the compounds were scattered in informal site layouts. Such informal community patterns match those expected for complex alliance systems whereby family units (in this case extended families) were scattered about in unplanned arrangements. The privatization of social space around individual compounds further suggests independence among compounds. The heavy walls surrounding the large platform mounds and their associated residential compounds suggest exclusionary architectural planning for leaders' mundane and ceremonial activities. If the changes in community patterns do reflect a shift toward complex marriage system or a "house" society and the associated political economies, then we should also expect that the extended families conducted their own ceremonial affairs utilizing their own surplus production.

Ceremony, Surplus Production, and Exchange

One of the most noticeable aspects of the Late Formative-Classic period transistion is the abandonment of ballcourts. With few exceptions, ballcourts ceased to be used at the end of the Early Formative. Because the Late Formative ballcourt-related feasts and ceremonies have been viewed as the contexts for intersettlement exchange and marital exchanges (Doyel 1991b:247; McGuire and Howard 1987:130; Wilcox and Sternberg 1983), their falling into disuse has important implications. The ballcourts signified communal participation in competition with other settlements. The absence of these events in the Classic period indicates both a loss of communal participation in major events and the loss of one means for intersettlement relations.

In addition to the shift away from ballgame-related feasts, ceremony, and exchanges, there was also a shift away from other ceremonies spatially located in public site areas. In fact, as described below for Classic period Pueblo Grande, there are no indications of ceremony aside from burials restricted to individual compound areas and ceremonies associated with platform mounds enclosed by massive walls. Unless the platform mound ceremonial activities involved collective participation of settlement members and attendance by all segments of guest settlements, which seems doubtful given the exclusionary nature of those heavily walled-in locations, the only other evidence for possible intersettlement ceremonial activities would have involved compound-associated mortuary rituals.

The Late Formative period cremations involved crematoria in public spaces, potentially organized and overseen by settlement leaders and/or ritual specialists in those public ceremonies. Classic period burials were inhumations. The Classic period inhumation rituals, although potentially involving specialists and certainly attended by allied families, instead were restricted to the individual compound spaces, which possibly indicates yet another loss of public ceremony. Furthermore, inhumations may have involved less investment in resources and labor than did cremations when considering the large amount of wood collected for funerals. If so, the change from cremations to inhumations might be explained by the shift from settlement organization of funerals to compound organization of funerals--there were smaller labor pools when organized by the individual compounds. There was, however, an average increase in mortuary accompaniments in the Classic period, which may suggest that competition during mortuary ceremonies was at the compound scale. The overall lack of public, intersettlement ceremonies in the Classic period corresponds to the model for complex alliances or a "house" society.

Van Keuren et al. (1997) show a decline in intersettlement exchange of pottery. Abbott (2000:170) also concludes through pottery analyses that there was less interaction among irrigation communities along the Salt River at the beginning of the Classic period. Many of the other crafts that were widely circulated through intraregional exchange were no longer produced (Doyel 1991b:239) or were concentrated at platform mounds (Bayman 1999:275). Although more local obsidian sources were widely distributed in the

Late Formative period, those same obsidian sources were apparently restricted to fewer settlements and there was a shift toward acquiring obsidian from long-distance sources (Bayman and Shackley 1999). Additionally, there was increased elite control over craft production and exchange (McGuire and Howard 1987:137). The general picture of exchange in the Classic period is one of less intersettlement interaction and greater control over craft production and distribution by platform mound-associated leaders, which suggests a shift to complex alliances or to a "house" society.

Ranking

In the Classic period, status was clearly exhibited in platform mounds: the first evidence for leaders to accentuate hierarchy in the cultural landscape. In addition to acquiring greater and more exclusive control over craft production and distribution, the leading platform mound-associated compound groups likely acquired greater control over irrigation and water distribution (Dean 1987:260; Gregory 1987: 209). In much of the region, formerly independent canal systems were consolidated into larger systems serving greater numbers of sites. There was a continuation of the multiple-tiered settlement hierarchy, with sites having platform being the largest within each irrigation community. Wilcox (1979:108) suggests such resettlement may be attributable to the consolidation of multiple irrigation systems under fewer centers (e.g., Nicholas and Neitzel 1984:175). Although canal system management was likely by leaders in the Late Formative period, the Classic period distribution of platform mound sites along major canals has been interpreted to reflect increased leadership control over water distribution (Dean 1987:260; Gregory 1987: 209). Rice (1998) suggests that settlements cooperating within irrigation communities were in competition with one another but allied against other irrigation communities.

The changes since the Late Formative suggest that there was a shift from exogamous settlement ranking through ceremonial organization to ranking via control over crafts and irrigation by leaders. Those leaders also controlled the more elaborate platform mound-associated ceremonies, which appear to have been spatially exclusionary rather than public (perhaps forming an intersettlement elite marriage network). The relationships between the leading compounds and the majority of compounds no longer emphasized ceremonial affairs; but rather, control over material wealth and water. These methods of maintaining internal ranking are associated with complex alliances and possibly a "house society." In summary, the Classic period community patterns, ceremonial organization, exchange, and ranking reflect the expectations for complex marriage systems and possibly a "house society." The Classic period phases at Pueblo Grande are now described in more detail to add substance to the generalizations just made.

Classic Period Pueblo Grande

The Soho phase occupations at Pueblo Grande can be divided into Early and Late components (Figure 4-6). Each of the nine Sacaton phase courtyards had an overlying Early and Late Soho courtyard of pithouses or post-reinforced adobe structures, illustrating temporal continuity in the courtyards. Three new Early Soho phase courtyards were established at the north end of the site, each with an overlying Late Soho courtyard, also illustrating temporal continuity in courtyards. The adding of residential groups to the north end of the site upset the formal elliptical site structure of the Late Formative. All of the Soho phase courtyards had their own cemeteries with cremations and inhumations

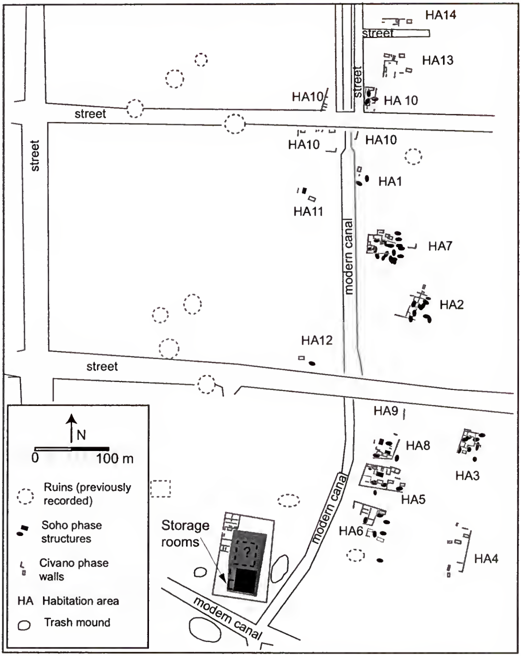


Figure 4- 6. The Pueblo Grande site during the Classic period. Combined and redrawn from Mitchell (1994a) and Bostwick and Downum (1994).

(Mitchell 1992). The lack of a communal cemetery suggests less emphasis on settlement affiliation than in earlier phases. Other than a small cache of water-worn stones, there are no indications of rituals in communal spaces: a dramatic departure from the Late

Formative period at Pueblo Grande. Additionally, the ballcourt was abandoned at the beginning of the Soho phase illustrating an end to site hosting of intersettlement ballgames.

Two adjacent platform mounds were constructed during the Early Soho phase. No information is available for the north mound. The south mound had one large pithouse and one small pithouse identified on its summit. A small room and 17 contiguous storage cubicles constructed of post-reinforced adobe walls were along the southwest base of the mound (Bostwick and Downum 1994:341). No other specialized storage features were identified at Pueblo Grande, signifying that whatever was stored at the platform mound was controlled by those inhabiting the two elevated structures. Because the two pithouses contained their own storage pits, the storage cubicles likely held surplus items for either ritual or mundane purposes.

The two platform mounds were integrated into one larger mound in the Late Soho phase. Although most of this larger mound is unexcavated, the south end was found to have had above-ground adobe walls and posthole patterns. A large enclosing wall was built around the mound. Between the enclosing wall and the mound were seven or more rooms and at least two small plazas forming a compound (Bostwick and Downum 1994:344). The mound-associated compound area appears to have been the residential area for a leading extended family or "house."

By the Civano phase, residential above-ground compounds were built in new locations north and east of the platform mound area, further decentralizing the site layout (Figure 4-6). Some of the compounds had numerous habitation rooms while others had few. Isolated above-ground rooms also were present. Courts and small plaza spaces within the compounds apparently functioned as work areas with pits or contained cemeteries. The small plaza spaces within the compounds suggest that the extended families or "houses" controlled mortuary rituals and that "house" affiliation superseded village affiliation. Despite the architectural difference from the pithouse and post-reinforced adobe courtyards of earlier phases, the above-ground compounds demonstrate some continuity: structures sharing common spaces and work areas. The differences are the walled-in, privatizing nature of the compounds, the small plazas, and the increase in compound-associated cemeteries indicating "house"-controlled ritual. Additionally, Abbott's (2000:182-183) comparisons of plain ware pottery indicate that some compounds had more relations with other compounds at Pueblo Grande than with compounds of other settlements. However, some compounds had greater relations with compounds of other settlements than with neighboring compounds at Pueblo Grande. If reflecting marriage alliances, these data would suggest both village endogamy and exogamy, which is expected for complex alliances and "house" societies.

The large residential compound within the large enclosing wall surrounding the platform mound had small plazas associated with cooking, milling, craft production, and general production activities. Several rooms and courts were also on the top of the platform mound One large storage room contained food and pigments possibly used in rituals (Bostwick and Downum 1994:344-348). Another room had a high ceiling and doorway, a central hearth, a piece of purple pigment, and sooted unusual walls of adobe wash, caliche slabs, and caliche chunks with mortar (Bostwick and Downum 1994:348). Later, this room was remodelled with four hearths. A second room was added on the north of that room with an antler, two bone awls, an ungulate leg bone, egg shell, an obsidian point, two red ware sherd points, a tubular worm shell, and a shell needle associated with the floor (Bostwick and Downum 1994:348-350). Subsequently, elevated rooms were possibly built on top of these two rooms, which also occurred with two rooms on the north end of the platform mound. The rooms on the mound suggest ceremonial activities absent at all other compounds at the site and the large enclosing wall surrounding the mound and residential compound suggest that a leading extended family or "house" controlled exclusionary ceremonies.

Pueblo Grande was abandoned at the end of the Classic period, which is related to the overthrow of chiefs specifically at Pueblo Grande and throughout the region in O'odham oral tradition (Teague 1993:442-443). The Classic period decentralized site structure, abandonment of intersettlement ceremonies, independent compound control over mortuary and other rituals, variable intra- and intersettlement ties, and increasing exclusivity in leadership-associated ceremony, and the courtyard-compound permanence across generations match the expectations for complex marital alliances and possibly a "house" society.

Classic Period "House" Societies?

Although societies with complex marital alliances and "house societies" (as defined above) share common features, the more formal houses in house societies should have distinguishing archaeological correlates. One distinctive definitional characteristics of a house society is that the formal "house" (the estate and the actual architectural structure) is maintained across generations whereas family relations in non-house societies with complex alliances function more on a generational basis among consanguines and affines. In terms of architectural arrangements, we would therefore expect to see permanence in architecture location across generations with "houses" (e.g., Tringham 2000). The pithouse courtyards at settlements surviving the Late Formative-Classic period transition were continuously occupied into the Soho phase, indicated by rebuilding episodes of entire courtyards in the same locations. As described above, all of the Pueblo Grande early Soho phase pithouse courtyards had compounds built directly over them in the later Soho phase, which also were continuously occupied into the Civano phase. Even some of the Sacaton phase courtyards had overlying or adjacent Soho phase courtyards and Civano phase compounds suggesting continuous occupation of those residential groups. The locational permanence, the focal courtyard spaces and subsequent compound plaza spaces, and the courtyard/compound-associated burial locations all suggest a meaningful importance to those units that transcended generations. Given this permanence in an archaeological period exhibiting characteristics of a complex marital system, I favor the more specific interpretation that Hohokam society had transformed into a "house" society during the Late Formative-Classic period transition. Although enduring pithouse courtyards existed in the Late Formative period, I did not interpret a "house" society for that period due to the abundant evidence for communal ceremonial organization at the collective settlement scale with which to compete for alliances. However, in the Classic period, that larger scale of organization all but disappeared, leaving the compounds largely independent in ceremonial affairs for competitive alliances.

Crow-Omaha Alliances and the Late Formative-Classic Period Transition

As described in chapters 2 and 3, there is a tendency in Crow-Omaha societies for the higher ranked groups to be the largest due to their competitive success in attracting more alliances. The larger exogamous group usually has more prominent ceremonial responsibilities for the society or has more successfully demonstrated through ceremonies its capacity to produce surpluses from its labor and resources. Marriages favoring the higher ranked groups play a large role in the disproportionate growth. Meanwhile, the less successful groups decrease in size as they marry less amongst each other and more with the higher ranked groups. As the more prestigious exogamous groups grow larger, they have greater capacities for surplus production (by more numerous members) giving them an advantage in competitive ceremonies, in turn attracting more marital alliances. The logical outcome of these marital strategies are that a few more ceremonially active exogamous groups grow disproportionately large in size over several generations and eventually lack enough members from outside their group to intermarry with. In societies where single exogamous groups form their own exogamous settlements, this process leading to demographic imbalances should result in a regional settlement size hierarchy. To maintain exogamy under these circumstances, the larger groups must fission into smaller similar groups, begin intermarriage with new groups, or devise other strategies that may transform the society (e.g., figures 2-4, 3-1, 3-2).

My interpretation of Hohokam prehistory is a Crow-Omaha developmental path toward disproportionate exogamous settlement sizes followed by a house society. In the Late Formative period, successful settlements were comprised of courtyard lineages formally arranged around plazas, and having public cemeteries, cremation spaces, and ballcourts for hosting intercommunity competitive feasts and ceremonies: the contexts for marital alliances and exchanges of surplus product with other exogamous settlements. These lines of evidence all suggest Crow-Omaha marital alliances involving exogamous settlements. Settlements were ranked, illustrated by the different sized settlements with different numbers and sizes of ballcourts and by the amount of other ceremonies at villages. Furthermore, the continued growth of the larger formal settlements emphasizing numerous intersettlement ceremonies and the simoultaneous declines at the less formal, less ceremonially-involved settlements reflects the process leading to disproportionate growth in Crow-Omaha marital systems. This process may have led to a crisis in exogamy. At the end of the Sacaton phase, and more clearly in the Classic period, residences were scattered in informal arrangements. Such community patterns are associated with complex alliances in the ethnographic survey. Collective settlement ceremonies were no longer prominent activities and intersettlement exchange was reduced. The permanence of compounds through generations and the shifting to independent compound-controlled ritual suggest "houses" rather than families in a pure complex system. The privatized platform mounds, elaborate rituals that took place only within those confines, and unequal distributions of exchange items also correspond with the expected ostentatiousness among leading "houses." Leadership at that point was less involved with communal ceremonial affairs and more involved with secular village matters. I propose that the shift toward a "house society" in the Classic period was the result of disproportionate growth in the successful, ceremonially-focused exogamous settlements to the point that there were too few members from other settlements to intermarry with.

Although fissioning into smaller exogamous settlements could have resolved the crisis, the archaeological patterns instead suggest fragmentation into a "house society" with complex marital alliances. Irrigation agriculture may have played a role in determining why a "house" society resulted rather than fissioning into smaller exogamous settlements. Because the canal systems were fixed features on the landscape, so too were the settlements relying on irrigation as a major subsistence strategy. Members of exogamous settlement were collectively dependent upon their settlement's resources for subsistence and for attracting spouses. At the same time, those resources were permanently located on the landscape and access to ancestral resources would have prevented fissioning to establish new settlements when crises in exogamy occurred. The transformation to complex alliances, whether intentional or not, would have offered to each compound the ability to remain within the same settlement, ensuring access to ancestral resources, and a much larger marriage pool with which to make alliances by lifting the rule of settlement exogamy. Once settlement exogamy was no longer a condition for marriages, there was little need for ballcourts, dance plazas, communal funerary events, and other communal ceremonies involving intersettlement participation and ceremonial leadership.

Hohokam archaeologists who are more accustomed to ecological models of cultural change will no doubt note the lack of theoretical attention paid in this paper to environment, subsistence, and irrigation technology. The purpose of this dissertation is to illustrate how a marital alliance perspective may contribute to understanding kinship and political economy in prehistory. As stated above, both Crow-Omaha and complex alliances cross-cut environments and subsistence strategies. Therefore, environment and subsistence strategies are not considered determinants of kinship and marriage alliances. However, my ommission of environment and subsistence strategies in the description of the alliance models is not intended to suggest their irrelevance to particular societies because environment and subsistence strategies contribute to the unique qualities of any given society. I therefore included discussion of irrigation systems in my discussion on Hohokam society, but did not ascribe to irrigation a direct causative role in kinship and marital alliances. I do, however, suggest that irrigation agriculture may have influenced the shift toward a "house society" rather than fissioning into smaller exogamous settlements, due to the fixed locational nature of these major subsistence strategies.

CHAPTER 5
THE ARCHAIC TO TCHEFUNCTE PERIODS IN THE LOWER MISSISSIPPI VALLEY

Long-held beliefs about societies in the Archaic periods of the U.S. Southeast have been challenged by the gradual acceptance by archaeologists of Middle and Late Archaic period mounds and their apparent formal arrangements (Russo 1994a). Archaic mound sites in the Lower Mississippi Valley were originally described by Gagliano (1963:114). However, these contradicted the pervasive cultural historical model and early radiocarbon dates for mounds were either dismissed or generated skepticism (Russo 1994a:89). Although we now accept many of the dates that Archaic period mounds have yielded, their existence presents an enigma for interpreting their function and relevance to Archaic period societies. The post-Archaic archaeological, ethnographic, and historical records might suggest appropriate analogies for earlier societies with mound sites. However, there has been some reluctance to use the more familiar later societies as analogs--to do so challenges deeply rooted archaeological beliefs on subsistence, sedentism, and cultural complexity.

Despite ethnographic and historical evidence for sedentism and ranking among maritime societies along the Northwest Coast, the California coast, and Southwest Florida, cultural ecological perspectives were prevalent at the time the early dates for Middle Archaic mound sites were becoming accepted by archaeologists. At the time, these perspectives typically did not include the possibility of sedentism or semi-sendentism, beyond temporary base camps, among interior hunting and gathering peoples. Whether these interior mounds were accretional midden deposits or built for ceremonial purposes, they indicate some degree of locational permanence and investment beyond occasional base camp gatherings (e.g., Jackson 1981; Ramenofsky 1991). Furthermore, the increasing numbers and sizes of sites in the Middle Archaic may indicate population increases, which are usually expected for sedentary and agricultural societies. Additionally, the possibility that formal elliptical or semi-circular arrangements of mounds (Figure 5-1) indicate ceremony and ranking, as among some post-Archaic and historical southeastern cultures, simply did not fit cultural ecological models for hunters and gatherers. The theoretical legacy of ecological explanations for sedentism can be found in discussions on whether or not local environments could have sustained sedentism in the Archaic (e.g., Gibson 1994:173-175; Jackson 1991).

Perhaps one of the most difficult possibilities for archaeologists to accept is the suggestion that formally planned mound settlements indicate some form of hierarchical ranking within Archaic period societies. Additionally, there may be a reluctance to accept the possibility that non-agricultural populations could even have ranking. However, the possibility for ranking in the Archaic periods is difficult to ignore when pointing out settlements with similar sizes and layouts in Amazonian and Caribbean chiefdom societies (Chapter 6). Kidder (1991), Gibson (1975), and Webb (1982) conclude that there was a Late Archaic regional settlement hierarchy in the Lower Mississippi region, which would suggest ranking among settlements. If a regional settlement hierarchy is plausible for the Middle Archaic, would this mean that those societies were chiefdoms? Likewise, do the

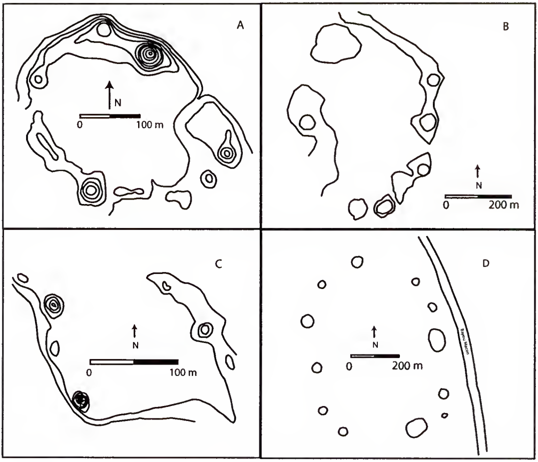


Figure 5-1. Community patterns at Archaic mound sites. A) Watson's Break (redrawn from Saunders et al. 1997: Figure 1), B) Caney Mounds (redrawn from Gibson 1991: Figure 3), C) Frenchman's Bend (redrawn from Saunders et al. 1994a: Figure 3), and D) the Insley Site (redrawn from Kidder 1994: Figure 4).

similar community patterns among ethnohistorical Amazonian and Caribbean chiefdoms indicate similar ranking in the Middle Archaic?

Prevailing models of ranking in "chiefdoms," "ranked," or "middle-range societies" tend to focus on elites and elite agency. Corporate-network theories emphasize collective vs. individualizing strategies by elites to obtain and maintain power over their dependent populations (e.g., Blanton et al. 1996; Earle 2001; Feinman et al. 2000; Peregrine 2001). More marxist-oriented perspectives similarly focus on how elites obtain and maintain power to exploit commoners while commoners resist that power by maintaining collective practices (e.g., McGuire and Saitta 1996). Recently, many researchers of power relations have assumed that tributary social relations existed among "chiefdom," "ranked," or "middle-range" societies (e.g., Ladefoged and Graves 2000:443; Marquardt 1988, 1992; Maxham 2000:338; Milanich 1995:49; Pauketat 1994; Spencer and Redmond 1998:105). Each of these perspectives focuses on social stratification within groups. However, despite the similarities in site layouts between some of the Archaic mound sites and later chiefdoms, evidence is lacking for elites in the Archaic that could substantiate analogous stratification with which to justify use of these prevailing models. At the same time, the increasing possibilities that Middle Archaic mound sites indicate sedentary or semisedentary settlement, systems of long-distance trade, and regional settlement hierarchies also suggest the possibility for complexity beyond the simple, mobile, hunter-gatherer models.

In this chapter, I argue that the Crow-Omaha model in Chapter 2 may account for formal community patterns among either sedentary or semisedentary groups, long-distance exchange, and ranking without highly distinguished elites. The perspective is argued to account for some of the discrepancies between the archaeological record of the Southeast Archaic periods and the existing cultural ecological models and models on hierarchy. Archaeological data on the Middle Archaic to Tchefuncte periods in the Lower Mississippi Valley are discussed in light of the Crow-Omaha marital alliance model, offering an explanation for the early mound sites and social change.

In applying these models to Southeastern prehistory, the reader should be cautioned for two reasons. First, although many of the sites discussed have been firmly radiocarbon dated to the Middle and Late Archaic periods, the date ranges for some of the sites span many centuries and chronological affiliations for other sites are based only on problematic artifactual observations. Second, the interpretations made are based on superficial archaeological data--there have been no large-scale horizontal excavations at any of the sites discussed. Nevertheless, I believe that trends can be observed and the similarities between the marital alliance models and the archaeological record of the region make the following observations and interpretations worth presenting for further discussion.

The site locations discussed in the text are shown in Figure 5-2. Table 5-1 lists comparative data on possible evidence for ritual and feasting, possible symbolic crafts and exchange items, and community patterns for mound sites of the Middle and Late Archaic periods in the Lower Mississippi Valley. These data were compiled from the authors cited in the right hand column and the Louisiana Division of Archaeology site files (cited as DOA 2002). Some entries in the table deserve comment. Abundant fire-cracked rock was listed in the ceremony column. However, this artifact class may represent daily food processing, if accumulated gradually over centuries, rather than indicating food preparation for feasts. Poverty Point objects are listed in the crafts and exchange column. Although some have been found in formal ceremonial contexts, these objects may have been part of daily ritualized food processing or even nonritualized food processing. Nonlocal stone is listed in the same column as evidence for participation in exchange.

To assist the reader in following my interpretations, I repeat here the ethnographic correlates of the two marital alliance strategies emphasized in this dissertation. Crow-Omaha marital alliances involve exogamous descent groups lacking prescribed marital

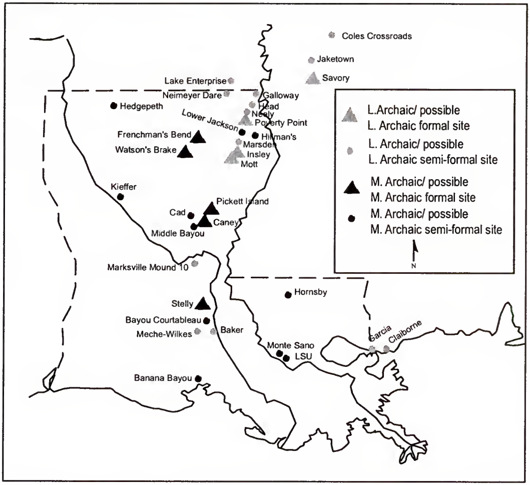


Figure 5-2. Locations of Archaic mound sites in the Lower Mississippi Valley.

groups, competitive ceremony and surplus production, possible stratification, and possible group ranking. Where the descent groups form individual settlements, formal community patterns can be expected. However, where settlements are comprised of multiple descent groups, both formal segmented and informal community patterns are possible (the latter substituting formal ceremonial camps). Complex marital alliances involve an absence of descent groups and no rules on group exogamy or prefered marriage pools. Families or "houses" compete with other similar units for marital alliances, status and rank are based on wealth and ostentatiousness requiring surplus production and there are no formal community patterns.

Table 5-1. Characteristics of Middle Archaic to Poverty Point period sites of the Lower Mississippi Valley.

Site	Age BP	Ritual and feasting	Craftsand exchange	Community pattern	References
MIDDLE ARCHAIC PERIOD SITES WITH RADIOCARBON DATES					
Monte Sano	7400-6800[1]	mounds, cremations at base of mound	3 beads (1 zoomorphic)	2 adjacent mounds	R. Saunders 1994
LSU	6700-4600[1]	mounds	-	2 adjacent mounds	R. Saunders 1994
Stelly	6300-4900[1]	mounds, plaza	Poverty Point objects, exotic stone, beads, plummets	3 mounds and 2 midden mounds surrounding a plaza	Gibson 1994; Russo and Fogelman 1994
Banana Bayou	5900-4500[1]	mound, basal platform in mound	Poverty Point objects	1 mound 1.3 km north of midden area	R. Saunders 1994
Hornsby	5600-4500[1]	mounds, hearth with poverty point objects in Mound B	Poverty Point objects	2 mounds adjacent to midden with hearths	R. Saunders 1994
Hedgepeth Mounds	5200-4500[1]	mounds, hearth at base of Mound A, fire-cracked rock/ironstone	Poverty point objects, polished celt, petrified wood, clay block	2 mounds	J. Saunders et al. 1994a, 1994b;Saunders and Thurman 1995:14
Frenchman's Bend	5500-5300[1]	mounds; plaza; hearths at base of mounds A, B, and C; fire-cracked rock in Mound C, abundant fire-cracked rock	Poverty Point objects, bannerstone, bead blank, exotic stone, polished celt, clay block	5 mounds along U-shaped ridge midden surrounding plaza	J. Saunders et al. 1994; Saunders and Thurman 1995:9-10
Watson's Brake	5400-5000[1]	mounds, plaza, abundant fire-cracked rock	steatite, clay blocks, beads	11 mounds along elliptical ridge midden surrounding plaza	Jones 1983:121-124; J. Saunders et al. 1994, Saunders and Thurman 1995:12113
Caney Mounds	5600-5300[1]	mounds, plaza,		6 mounds along elliptical ridge midden surrounding plaza	Gibson 1994

Table 5-1. Continued.

Site	Age BP	Ritual and feasting	Craftsand exchange	Community pattern	References
Lower Jackson Mound	5955-5655[1]	mound	Poverty Point objects, zoomorphic bead, bannerstone, clay block,	1 mound with adjacent hearth with clay blocks, and a concentration of points	Saunders et al. 2001
MIDDLE ARCHAIC SITES WITH MOUNDS POSSIBLY ASSOCIATED WITH THAT PERIOD					
Pickett Island	-	mounds, plaza	Poverty Point objects	5 mounds along elliptical ridge midden surrounding plaza	Gibson 1994; DOA 2002
Hatchersville Mounds	-	mounds	-	2-3 mounds with adjacent artifact scatter	R. Saunders 1994; DOA 2002
Kieffer	-	mounds, burials	beads	3 mounds	Gibson 1994; DOA 2002
Bayou Courtableau	-	mounds	Poverty Point objects	3 mounds and artifact scatter	Gibson 1994; DOA 2002
Bluff Creek	-	mounds	-	2 mounds with artifact scatter	R. Saunders 1994; DOA 2002
Hillman's Mound	-	mounds	-	mounds	Gibson 1994; DOA 2002
Cad	-	mound	beads, plummets	1 mound with adjacent midden	Gibson 1994; DOA 2002
Middle Bayou	-	mound, fire-cracked rock	-	1 mound	Gibson 1994; DOA 2002
Crown-Zellerbach Mound	-	mound	-	1 mound with adjacent midden	R. Saunders 1994; DOA 2002
Dry Branch Mound	-	mound	-	1 mound with adjacent artifact scatter	R. Saunders 1994

Table 5-1. Continued.

Site	Age BP	Ritual and feasting	Craftsand exchange	Community pattern	References
Youngblood Cemetery Mound	-	mound	-	1 possible mound with adjacent midden	R. Saunders 1994
Pidgeon Creek I	-	mounds?	-	possible mounds with artifact scatter	R. Saunders 1994
Pidgeon Creek II	-	mounds?	-	possible mounds with artifact scatter	R. Saunders 1994
Evelyn Bond Mound	-	platform	-	1 platform	R. Saunders 1994
Zellie Felder Mound	-	mound	-	1 mound	R. Saunders 1994
Old Heath Place	-	mound	lapidary beads in mound	1 mound with adjacent artifact scatter	R. Saunders 1994
Narcille Drouin Mound	-	mound	-	1 mound with nearby artifact scatter	R. Saunders 1994
Avondale	-	mound	jasper bead	1 mound with nearby artifact scatter	R. Saunders 1994
Angola Gate Mound	-	mound	Poverty Point objects	1 mound	R. Saunders 1994

Table 5-1. Continued.

Site	Age BP	Ritual and feasting	Craftsand exchange	Community pattern	References
LATE ARCHAIC - POVERTY POINT PERIOD SITES					
Poverty Point	3200-2200^{2}	mounds, plaza, fire-cracked rock	Poverty Point objects, beads, lapidary ornaments, exotic stone, steatite vessels, figurines, and copper	6 mounds adjacent to, in, and near plaza formed by 6 parallel semi-circular ridges interrupted by 5 aisles	Gibson 1970, 1974, 1982; Webb 1970b, 1982
Jaketown	3080^{3}	mounds, plaza	Poverty Point objects, plummet, exotic stone, steatite, tablets, bannerstones	8 mounds forming an arc along natural levee	Gibson 1994; Webb 1970a, 1982
Claiborne	4000-3100^{2}	plaza, mound	Poverty Point objects, steatite vessels, figurines, plummets, celts, ornaments, beads, exotic stone	1 mound northeast of semi-circular midden	Gagliano and Webb 1970a, 1982 Gibson 1994; Bruseth 1980, 1991
Teoc Creek	3700-3100^{2}	plaza, fire-cracked rock	Poverty Point objects, plummets, exotic stone, pipes, beads, ornaments	semi-circular midden	Webb 1982
Slate	-	plaza	Poverty Point objects, exotic stone, beads, ornaments, plummets, effigies, bannerstones	semi-circular artifact scatter	Lehmann 1981
Lake Enterprise	-	mound	Poverty Point objects, exotic stone	1 mound with adjacent midden	Jackson and Jeter 1994
Marksville Mound 10	-	mound	Poverty Point objects, exotic stone, plummets,	1 mound	Gibson 1994; Webb 1982

Table 5-1. Continued.

Site	Age BP	Ritual and feasting	Craftsand exchange	Community pattern	References
Meche-Wilkes	-	mound	clay fragments	1 mound with adjacent midden	Gibson 1994; DOA 2002
LATE ARCHAIC SITES WITH MOUNDS PROBABLY ASSOCIATED WITH THAT PERIOD					
Insley	-	mounds, plaza	Poverty Point objects, exotic stone, pipes, steatite, plummets, ornaments, beads, celt	10 mounds forming an ellipse surrounding a plaza, middens	Gibson 1994; Griffing 1985
Mott	-	mounds, plaza, burials	Poverty Point objects, exotic stone	10-13 mounds forming an ellipse surrounding a plaza	Gibson 1994; DOA 2002
Savory	-	mounds, plaza	Poverty point objects	6-8 mounds and an artifact scatter forming a semicircle surrounding plaza	Gibson 1994; Webb 1970a, 1982
Coles Crossroads	-	mound, plaza	Poverty Point objects	1 mound with adjacent midden forming a semi-circle	Gibson 1994; Webb 1982
Neimeyer Dare	-	mounds	Poverty Point objects, stone vessels, pipes, beads, ornaments, exotic stone	2 mounds with adjacent midden	Gibson 1994; DOA 2002
Garcia	-	mound	plummets, boatstones, beads, exotic stone, celts	1 mound	Gibson 1994; Webb 1982

[1] Calibrated, two-sigma
[2] Radiocarbon years, two-sigma
[3] Thermoluminescence

Middle Archaic Period (ca. 6,000-4,000 BP)

Archaeological sites of the Early and Middle Archaic periods in the broader Southeast typically consist of camps for small groups and larger base camps where they came together seasonally (Anderson and Hanson 1988; Bense 1994:69-72, 82). The base camps typically exhibit more intensive occupation due either to repeated seasonal use or intensive use for few episodes (Bense 1994:69-71, 82). Food processing was a major activity at base camps (Bense 1994:69-71, 82), suggesting that groups collectively took part in feasts. Where identified, burials tend to be in distinct groupings (Bense 1994:79) suggesting that mortuary rituals also took place in some collective settings but that membership in the smaller groups was important. The Middle and Late Archaic periods witnessed an increase in mound-building, production and trade of symbolic artifacts, feasting, and dance plazas. Within the Lower Mississippi Valley there appear to be two classes of community patterns among the Middle Archaic period sites: larger sites with circular, elliptical, or semi-circular midden ridges and mounds surrounding plazas and smaller sites with one to few mounds near to or adjacent to large middens (Table 5-1). The formal Middle Archaic sites (with circular elliptical, or semi-circular midden ridges and mounds surrounding plazas) include Frenchman's Bend, Watson Brake, Caney Mounds, Stelly Mounds, and possibly Pickett Island. Frenchman's Bend and Watson Brake in northeastern Louisiana form a spatial pair. Caney Mounds and Pickett Island in central Louisiana form a second spatial pair. The larger concentric settlements of the Middle Archaic were occupied for most of the year and were in areas with the largest populations (R. Saunders 1994:133). Although Saunders and Thurman (1995:6) claim there is limited evidence for trade items, others report nonlocal stone at the Middle

Archaic sites (Table 5-1). Based on the reported artifacts presented in Table 5-1, these formal sites typically have several categories of nonutilitarian artifacts: beads, bannerstones, polished celts, and plummets. Lapidary tools and abraders (not listed in Table 5-1) are also found at Middle Archaic sites, indicating utilitarian and nonutilitarian craft manufacturing. Assemblages also include fired clay blocks. The mounds that have been excavated at these sites share hearths and structures at their bases (R. Saunders 1994:133). Excavations in the middens surrounding the probable plazas yielded poverty point objects and light to abundant quantities of fire-cracked rocks indicating frequent or intensive cooking activities.

Discussion has been generated over whether or not circular mound arrangements in the southeast represent ceremonial activities or trash accumulations (Russo 1994b:93). Blessing and Sassaman (2001) found that Archaic circular shell middens along the Georgia-Carolina coast formed around and outside of circular arrangements of domestic structures with open, central plazas. Within the Hohokam region of the Southwest, circular patterns in trash mounds also occurred from deposition outside circular arrangements of domestic structures surrounding barren plazas (e.g., Wilcox et al. 1981). The Taíno of the Greater Antilles also had circular trash ridges reflecting circular arrangements of domestic structures surrounding barren plazas (e.g., Ensor 2002b; Siegel 1999). It is therefore reasonable to assume that similarly shaped midden rings in the Lower Mississippi Valley are indicative of formal circular community patterns. As demonstrated in the ethnographic analyses above, the issue for the marital alliance perspective presented here is not whether or not the rings themselves functioned for ceremonial purposes; but rather, that they indicate formal community patterns in domestic arrangements.

Nevertheless, the mounds placed in circular, elliptical, and semi-circular arrangements along the midden ridges also support the interpretation for formally arranged ceremonial activities at these settlements.

Surrounding the formal sites were the more numerous semi-formal sites (with one or more mounds near to or adjacent to middens), which include the more firmly dated Lower Jackson Mound, Monte Sano, LSU, Stelly, Hornsby, Banana Bayou, and Hedgepeth Mounds sites in addition to the other possible Middle Archaic mound sites and those affiliated with Gagliano's (1963, 1967) proposed Amite River phase. Mound excavations at Monte Sano, Hornsby, and Banana Bayou have demonstrated a shared pattern in mound construction over, or associated with, possible crematory features, hearths, and structures (R. Saunders 1994:133). With the exception of poverty point objects, these sites tend to have fewer categories and fewer quantities of nonutilitarian artifacts and nonlocal resources compared with the more formal sites. Abundant fire-cracked rock has been found at Hedgepeth Mounds, which indicates frequent or intensive cooking activities.

Among the two marital alliance models, the Middle Archaic period sites most closely resemble the archaelogical correlates for Crow-Omaha marital alliances. The larger more formal sites with circular, elliptical, and semi-circular community patterns resemble settlements of single exogamous groups in the ethnographic societies having Crow-Omaha marital alliances. The focal plaza spaces of the more formal sites may have been used for hosting dances and other rituals. The mounds themselves suggest an emphasis on ritual activities. The abundant fire-cracked rock found at these sites also may suggest the hosting of feasts (although long-term settlement alone may explain this abundance). The more ubiquitous nonutilitarian artifacts and nonlocal stone at these sites also suggest trade for symbolic purposes (e.g., marriages and exchanges while hosting and attending ceremonies). Taken together, the formal community patterns, the range of potential rituals, the possibility for feasts, and the nonutilitarian artifacts exhibit a close match with the ethnographic settlements for single exogamous groups participating in competitive marital alliances.

The more formal settlements could be interpreted as more successful at building alliances for two reasons. First, their larger sizes suggest they attracted more people, likely through unilocal postmarital residence preferences. Second, the greater range of ceremonies and possible feasts, including the spatial planning associated with these, suggests greater elaboration by the collective group, possibly for hosting more frequent and impressive events. The semi-formal settlements also resemble some ethnographic exogamous group settlements but with less elaboration than at the formal sites, which may explain the smaller sizes and relative lower quantities of trade items and nonutilitarian artifacts. These groups were less successful at attracting marital alliances. Assuming contemporeneity among some formal and semi-formal sites, there would be a regional settlement hierarchy. If so, this settlement hierarchy could indicate ranking among exogamous groups. That ranking, in turn, would have been based on the collective prestige from the elaborateness, impressiveness, and frequency of hosting ceremonies and feasts to attract marital alliances. However, there is no evidence to suggest internal social stratification. As described for Crow-Omaha marital alliances, groups can be ranked without the hereditary leadership associated with chiefdoms. Of course, contemporeneity among the two site types awaits substantiation.

Late Archaic Period and Poverty Point Culture (ca. 4,000-3,000 BP)

The Late Archaic sites, and those suspected of having Late Archaic affiliation, also include formal and less formal community patterns. Kidder (1991) concludes that there was a regional settlement hierarchy within site clusters. The period is also characterized by intensified trade (Saunders and Thurman 1995:18). The Poverty Point site itself represents formal community patterns to an extreme. The site consists of six parallel ridges, separated by aisles forming 36 ridge segments. The ridge segments form a semi-circle around a plaza. Adjacent to the ridges and in the plaza are four mounds. Motley Mound is located to the north and may represent a separate site. Postholes, hearths, earth ovens, caches, and pits have been found on and off the ridges (Exnicios and Woodiel 1986;Gibson 1994:175; Haag 1986) indicating domestic activities and possible feast preparations. The numerous poverty point objects, symbolic artifacts, and nonlocal stone at the site suggest exchanges. Intrasite nonrandom spatial patterns in artifacts have been observed at Poverty Point (Altschul 1986; Exnicios and Woodiel 1986; Gibson 1970, 1973, 1994; Haag 1986; Webb 1970b).

There is a clear settlement hierarchy in this period (Kidder 1991; Gibson 1975; Webb 1982:13). The Savory site in western Mississippi, the Mott site, and Insley Mounds--possible Late Archaic mound sites--had ellipitical and U-shaped community patterns (Gibson 1994:172). If coeval with Poverty Point sites, their formal community patterns, very similar to those in the Middle Archaic, may represent a second tier in the regional settlement hierarchy (Table 5-1, Figure 5-3). The majority of Late Archaic period sites, known and suggested, are smaller, less formal, and have one or few mounds. Collections at these sites include a similar range in artifacts, but in smaller quantities. The symbolic artifacts and nonlocal stone materials suggest that members of this lower tier of the settlement hierarchy may have participated to a lesser degree in ceremony and exchanges. The Terral Lewis site may be representative of nonmound Late Archaic period sites. That site consisted of a midden similar to sites with one or few mounds. Collections yielded Poverty Point objects, steatite vessel fragments, nonlocal stone materials, and plummets found downslope from the midden (Gregory et al. 1970). Many other sites sharing Poverty Point assemblages have been identified without mounds. Interestingly, the Teoc Creek site, although not having mounds, has a semi-circular shaped midden surrounding a plaza (Webb 1982:10) (Table 5-1). Similarly, the Slate site has a horseshoe-shaped artifact scatter (Lehmann 1981:41) (Table 5-1).

Based on models of population, settlement patterns, redistribution, ranking, and economics, Gibson (1973) concluded the Poverty Point culture constituted a chiefdom and some mention should be given to Gibson's (1973) original thoughts on kinship. He concluded, through spatial distributions of artifacts within Poverty Point, that the community was divided into two exogamous moieties and that there were matrilocal postmarital residence preferences. However, ethnographic moieties rarely regulate marriage and typically serve no important function in social structure (Moore 2001b). The interpretation for matrilocal postmarital residence was based largely on nonrandom distributions of food preparation items, which could simply indicate routine locations for certain types of food processing. Nevertheless, in different ways and for different reasons I also interpret ranked and exogamous groups for the Late Archaic period.

As in the Middle Archaic period, many sites of the Late Archaic period share commonalities with ethnographic settlements for single exogamous groups competing for marital alliances: formal and semi-formal community patterns, the hosting of a range of potential ceremonies and feasts, abundant nonutilitarian artifacts and nonlocal stone, and a settlement hierarchy. Poverty Point stands at the apex of the settlement hierarchy, which may have been the result of attracting more marital alliances through impressive and frequent collective ceremonies. The ethnographic survey in Chapter 3 does indicate that there are societies with Crow-Omaha marital alliances having formal settlements comprised of multiple exogamous groups. Assuming that the ridges at Poverty Point were residential (postholes are found on and adjacent to them), they may reflect either multiple exogamous groups with formally arranged locations within the settlement or multiple lineages collectively forming one large exogamous group. Given the sheer size of the ridges, it seems reasonable to suspect that the combined population of such groups would be large enough to support a number of exogamous groups. In fact, with the exception of having a semi-circular plan, Poverty Point resembles the formal settlements in Crow-Omaha societies in the ethnographic survey having settlements with multiple exogamous groups and the temporary formal ceremonial camps of Crow-Omaha societies in the few Plains societies that lacked formal settlements (Chapter 3). However, the smaller sizes of the formally arranged Savory, Mott, and Insley Mounds sites in the second settlement size tier suggest a background regional context of settlement exogamy and a continuation of strategies from the Middle Archaic period. As with the Middle Archaic sites, I see little evidence for social stratification, which is not a condition for group ranking ethnographically.

Tchefuncte Period (ca. 2,500-1,700 BP)

A major question in the archaeology of the Lower Mississippi Valley concerns the disappearance of large mound sites and a reduction in long-distance trade during the transition into the Early Woodland. Despite being the earliest period with widespread use of pottery, many of the culture traits from the Middle and Late Archaic periods continued into the Tchefuncte period (Neuman 1984:127). These include poverty point objects, pipes, ornaments, plummets, bannerstones, stone vessels, abraders, faunal bone implements, and lapidary tools (Ford and Quimby 1945:29-51). However, well-defined mounds and settlements comparable in size to many of the earlier sites are lacking. Low domed earthen mounds are occasionally found with Tchefuncte period middens, but there has been little investigation into their chronological associations (Neuman 1984:134).

Both earthen and shell middens have been identified at sites. The Tchefuncte site had two large, low *rangia cuteata* middens with 58 burials, pottery, clay pipes, poverty point objects, and utilitarian and nonutilitarian bone crafts (Lewis 1995:33). Lewis (1995:40-60) interpreted a range of ritual activities at the site in addition to the mortuary ceremonies. Burials were common in middens (Ford and Quimby 1945:25-27). Based on faunal remains, Byrd (1976) speculated that there was seasonal occupation at the Morton shell mound. Domestic structures were found at the Lafayette and Little Oak Island sites (Gibson 1974:76; Ford and Quimby 1945:21) and Shenkel (1981) concludes that the Little Oak Island site was intensely occupied. Unlike the Middle and Late Archaic formal mounds and middens, the Tchefuncte period middens were not formally arranged and there is too little information on spatial patterns of domestic architecture to compare community patterns. The general picture of the transition into the Tchefuncte period is one of fragmentation into numerous small semisedentary groups (Gibson 1974) associated with mortuary rituals, production and exchange of symbolic artifacts on a localized scale, and possibly mound construction on a reduced scale (Neuman 1984:116-117, 135).

Obviously, the lack of information on structure arrangements at the midden sites does not allow reconstruction of community patterns. Small group sizes seem plausible, with either unilocal or bilocal postmarital residence preferences. The production of symbolic artifacts in a small population of small groups are analogous to the expectations for either Crow-Omaha or complex marital alliances. Without additional data to base comparisons with the ethnographic analysis, I cannot speculate on which system of alliances may have been used. However, when viewing long-term trends from the Middle Archaic to the Tchefuncte period, the marital alliance models do allow some insight into why the Archaic pattern disappeared.

Kinship, Marriage, and Transformations

Here, I attempt to account for the transformations resulting in the Poverty Point phenomenon and the disruption of that trend in the Tchefuncte period. I interpreted a Crow-Omaha marital alliance system for the Middle and Late Archaic periods based on the shared patterns between the sites of those periods and the archaeological correlates from the ethnographic samples. Ethnographically, Crow-Omaha marital alliances involve exogamous descent groups lacking prescribed groups for intermarriage, which results in surplus production for ceremonial competition to attract alliances and group ranking. Where exogamous descent groups form individual settlements, formal community patterns are predictable. The Middle and Late Archaic period settlements exhibit formal community patterns, ceremony, surplus production, and group ranking and thus match the ethnographic correlations for exogamous settlements practicing Crow-Omaha alliances. Because the Late Archaic period sites also exhibit these correlates, I interpreted a continuation of Crow-Omaha alliances into that period. Although internal stratification sometimes occurs with Crow-Omaha alliances, this does not appear to be the case in the Middle and Late Archaic periods. The principle change in the Late Archaic period was that a single site, Poverty Point, represented a community ranked well above all others in size and scale of ceremonial organization and consisted of multiple exogamous groups.

In Chapter 2 I described how demographic imbalances in group sizes can occur over time. Within societies where groups are ranked by prestige based their ability to produce surplus and host competitive ceremonies, there is a tendency for the higher ranked groups to be the largest because they attract more marital alliances. The effect is a demographic gravitation into the more prestigious groups through postmarital residence, which further enables the prestigious groups to produce greater amounts of surplus and conduct impressive ceremonies. The groups that are less successful at acquiring prestige through competitve ceremony and associated surplus production decrease in size as they marry less among themselves and more with the higher ranked groups. In societies where settlements are comprised of single exogamous groups, which matches most closely with the Middle Archaic sites and most of the Late Archaic sites, this process should result in different sizes of settlements. I propose that such a gravitational process was already taking place by Middle Archaic times, which would account for the apparent larger sizes of the formal settlements that were better prepared to attract marital alliances with more impressive ceremonies.

In reference to the demographic gravitational pull of prestigious exogamous groups practicing Crow-Omaha marital alliances, I also described how potential periodic crises in exogamy can occur. The logical outcome of Crow-Omaha marital strategies are that a few groups grow disproportionately in size over several generations and eventually lack enough members from outside their group to intermarry with. To maintain exogamy, the larger growing groups must fission into smaller similar groups, begin intermarriage with new groups in surrounding regions, or devise other strategies that may transform the society--like the Hohokam described in Chapter 4.

If Poverty Point comprised multiple exogamous groups, it may represent a fissioning process possibly as an adjustment to a crisis in settlement exogamy. However, unlike the model in Figure 3-1 whereby new exogamous settlements are established after fissioning, the Poverty Point group may have fissioned into multiple exogamous groups that remained within the same settlement. As Figure 3-2 and the analogy with Moundville suggest (Chapter 3), large sites with distinct group locations may reflect multiple kin groups. Although the newly established exogamous groups at Poverty Point opted to remain within the same settlement, this was in the regional context of exogamous settlements. Nevertheless, the same process for disproportionate growth, crises in exogamy, and fissioning can explain both patterns existing simoultaneously. Speculatively, remaining within the same settlement at Poverty Point may have allowed those exogamous groups to attract more prestigious marital alliances through collective investments in ceremonial infrastructure that outshadowed the capabilities of the surrounding exogamous settlements.

The transition into the Tchefuncte period also may represent mass fissioning of numerous sites due to demographic imbalances in a Crow-Omaha marital alliance system. To explain that transformation, I propose that at the climax in the Late Archaic period a crisis in settlement exogamy occurred whereby successful groups became too large, and less successful groups became to small, for the leading groups to continue practicing exogamy. As a strategy to deal with this demographic imbalance, I suggest they fissioned into the smaller groups observed in the Tchefuncte period.

The continued emphasis on ceremonies and rituals in the Tchefuncte period, and the continued production of symbolic artifacts used in marital alliances, indicate either a continuation of a Crow-Omaha marital exchange system, whereby small but more numerous semi-sedentary exogamous groups competed for alliances, or a shift to complex marital alliances. Based on what came after the Tchefuncte period, I favor the interpretation of continued Crow-Omaha alliances. The competitive nature of such alliances may have favored some exogamous groups over others until, in the Marksville period, we witness yet another period of large formally planned settlements with embankments, plazas, large scale feasting, long-distance exchange, and a clear settlement hierarchy--this time accompanied by elaborate mortuary rituals (Ford 1963; Toth 1974) and stratification (Bense 1994:141). These patterns suggest Crow-Omaha alliances among exogamous settlement groups in the Marksville period, which may represent the culmination of a second demographic cycle expected with those marriage practices over many generations.

By analogy with ethnographic observations on marital alliance strategies, which dictate patterns in group composition, surplus production, exchange, ranking, and demography, I argued that exogamous settlements competed for marital alliances with a Crow-Omaha marital alliance strategy in the Middle and Late Archaic periods. That marital alliance strategy gave rise to the need for collective competitive dances, feasts, and rituals; planned community patterns; and intensified production and trade of symbolic artifacts. Unequal distribution of marital alliances among exogamous groups may have led to disproportionately larger sizes of more successful groups. Regional settlement hierarchies therefore emerged between formally and less formally prepared settlements. By the end of the Late Archaic period, the larger successful groups would have experienced crises for exogamy. In applying these same models to the Hohokam of the Southwest U. S. (Ensor 2001a, 2002a), I argued that the same type of crisis was dealt with by shifting to complex marital strategies resulting in a house society. However, the Lower Mississippi Valley societies may have addressed similar crises at the end of the Late Archaic period by fissioning into smaller exogamous groups. Because they maintained a Crow-Omaha marital alliance strategy, the cycle repeated itself with the reemergence of intensified competitive ritual, formal community patterns, intensified surplus production and exchange, and ranking in the Marksville period. This second cycle involved larger populations and social stratification.

With superficial data on community patterns, ceremony, nonutilitarian artifacts, and incomplete settlement patterns, I arrived at conclusions on how people intermarried and what types of postmarital residence preferences they had. Although I am typically skeptical of the use of superficial data to reconstruct the complexities of human relations, I now find myself guilty of having done just that. Clearly, many questions need to be addressed to adequately evaluate the interpretations here. For example, were the formal settlements really comprised of groups larger than at less formal settlements? Or are they the result of longer occupations? Are the middens and midden rings contemporary with the mounds as interpreted here? Are the plazas actually devoid of features suggesting dance plazas? Does abundant fire-cracked rock suggest feasting, long-term gradual accumulation, or filling episodes? How did community patterns change through time at Poverty Point? What are the community patterns at the Tchefuncte sites? Due to a paucity of large-scale excavations within the region, the list could go on and on.

CHAPTER 6

THE DEVELOPMENT OF COMPLEX CHIEFDOMS AMONG THE TAÍNO

Chapters 4 and 5 illustrate different transformational strategies taken among the Hohokam and the Archaic Lower Mississippi Valley societies. In this chapter, I outline an argument that a marital alliance perspective on Crow-Omaha kinship can fill a void in contemporary models on social stratification among the Caribbean Taíno. Although varying, the specific models I address share an elite-centered perspective, which theorize that elite strategies result in social stratification. I argue that this perspective tends to overlook the political economies that constrain and direct elite strategies and that the perspective views nonelites as overly passive. Although not disagreeing with the notion that elites strategize, I suggest that a marital alliance perspective can add a larger social context, which includes nonelite strategies, therefore complementing models on social stratification.

Much of our knowledge on Taino social structure is derived from the early Spanish accounts (e.g., Alcina Franch 1983; Cassá 1974; Dreyfus 1981; Keegan 1997; Rouse 1948, 1992:5-16; Veloz Maggiolo 1972; Wilson 1990; among others). Each province had a *cacique* (chief), under whom were several district caciques. Beneath a cacique were said to be nobility, commoners, and slaves. However, the existence of a class of nobles is in question (Cassá 1974; Moscoso 1981:215; Floyd 1973; Pike 1972). Each village had a chief. Although Taino society was patriarchal (Sued-Baudillo 1985), inheritance and succession was along matrilineal lines. Villages were comprised of different lineages resembling conical clans; the chief's being the dominant lineage, which may represent the nobility viewed from the Spaniard's feudal conceptualization (Moscoso 1981:215). The Taino lived in villages with up to 50 houses, built of pole and thatch or wattle and daub, irregularly encircling a plaza. Dances and ceremonies took place within the plaza where the chief's large house was located. Many villages had ballcourts for the game *batey*. People kept *cemis* that had symbolic meanings. There were shamans who learned medicinal values of herbs and oversaw spiritual production of some crafts. Subsistence included marine and riverine fishing/harvesting, terrestrial hunting and gathering, horticulture, and agriculture. However, the primary agricultural pursuit was the growing of cassava. In some areas cassava was grown on *conucos* (raised fields). It was processed into bread on *burenes* (griddles). Other cultigens, fish, and additional marine resources were stewed in "pepper pots."

The early ceramic periods (2500-1400 B.P.) are traditionally referred to as the "Saladoid" era after Rouse's (1992) approach to regional-temporal classification. Common ceramic styles are white-on-red and polychrome paint with bell-shaped bowls and D-shaped handles, zoned-incised crosshatched (ZIC) designs, effigy bowls, incense burners, and three-pointed cemis. Lithic and shell tools and lapidary items were widely used. Saladoid sites are commonly small and there are no settlement hierarchies. There were no ballcourts in use at the time but the game may have been played (Rouse 1982:15). Numerous house postholes have been found around central plazas at the Tutu Archaeological Village site, St. Thomas, the Golden Rock site, St. Eustatius, and the Maisabel site. In the subsequent "Ostionoid" era pottery designs were simplified, with white-on-red painted rectilinear motifs, vertical incised lines, and modelled-incised lugs becoming more common (Rouse 1992:124). The three-pointed zemis remained common but other personal adornments may have become exclusive to leadership. The settlement patterns in the Greater Antillies demonstrate regional site size hierarchies. Ballcourts, cemeteries, and constructed plazas form the central public spaces at larger sites. Habitation areas typically surround the open central areas. There is demonstrable variation in materical culture and degree of social ranking among the islands throughout the cultural sequence (Keegan 2002; Rouse 1992).

Theories on the Development of Taíno Chiefdoms

In 1970's cultural ecological theories on the development of Caribbean chiefdoms, stratification was believed to occur through quantitative and qualitative changes in subsistence adaptation and technology (e.g., Sanoja 1970, 1982; Sanojoa and Vargas 1974; Veloz Maggiolo1976, 1977, 1984:11). For example, a shift from horticulture to agriculture was viewed to cause social stratification because it was assumed someone "must" oversee this new use of land (e.g., Sonoja 1982; Vargas 1989). These perspectives were criticized by Moscoso (1981) for their emphasis on "ecological determinism." The cultural ecological approach continued to be mainstream into the 1980's--albeit with a new theoretical façade whereby ecological adaptations were believed to structure the everyday social relations that form a "mode of life" (e.g., Vargas Arenas 1985, 1986: 69-70; Veloz Maggiolo 1984:9; Veloz Maggiolo and Pantel 1988, 1989). However, the same theoretical problem of how subsistence causes social change was never addressed and the ecological perspective gradually faded away.

Also during the 1980's, there was a long debate between Francisco Moscoso (1981, 1986, 1999) and Roberto Cassá (1974, 1992) on whether or not social stratification arose by Taíno chiefs exploiting commoners through tributary relations of production. Moreira de Lima (1999) supported Cassá's position that the Taíno did not have tributary class relations. At the heart of the debate were the early Spanish documents, which both positions relied upon. The documents themselves have been argued to be significantly biased (Keegan 1995). For example, the early Spanish descriptions of Taíno kings, nobility, commoners, and slaves are now widely recognized to be Spanish perceptions based on feudal Spain (Cassá 1974; Cusick 1989:6; Guarch Delmonte 1973; Moscoso 1981:215; Tabío and Rey 1966). Sturtevant (1998:138-139) noted that this same social hierarchy was described in practically every American society the Spanish encountered and questions whether that social organization existed anywhere. Likewise, tributary social relations might be viewed as a product of Spaniard's preconceptions. The accounts of Taíno tribute have been argued to be descriptions of the Spanish-imposed *encomienda* system (e.g., Tabío and Rey 1966), which seems plausible when considering they were written well after major social reorganizations were imposed by the Spaniards.

Corporate-Network Theory

More recent explanations for social stratification among the Taíno involve elite agency perspectives. These explanations focus on strategies taken by individuals to promote and maintain their status as leaders. An underlying assumption in these models is that individual agency can produce social hierarchy.

A major paradigm used for viewing elite strategies involves "corporate-network" theory (e.g., Blanton et al. 1996). Blanton et al. (1996) originally set out to describe two political economic behavioral strategies among leaders of societies at all levels of complexity and scale. They viewed both corporate and network strategies as coexisting in all societies, but with one or the other as dominant at any particular time and place. Similar to Renfrew's (1974) model for "individualizing chiefdoms," the network strategy involves elites who emphasize exchanges in prestigious marriage alliances, exotic goods, and specialized knowledge in extralocal networks (Blanton et al. 1996:4-5). This strategy places emphasis on the production and exchange of "prestige goods" (after Friedman and Rowlands 1978; Brumfiel and Earle 1987). The elite control the raw materials for prestige goods, which forms a reciprocal relationship between elites and their "dependent" commoners (Blanton et al. 1996:5). Where successful, network strategists monopolize the extralocal exchanges (Blanton et al. 1996:5). However, leadership tends to be volatile with potential conflicts and networks may go through generational cycles. Similar to Renfrew's (1974) "group-oriented chiefdoms," corporate strategies are claimed to promote monumental architecture, comparative egalitarianism, wealth equality, communal ritual, and a lack of evidence for powerful individuals (Blanton et al. 1996:6; Feinman et al. 2000, Earle 2001). Unlike network strategies, corporate political economic strategies do not emphasize prestige goods; but rather, "staple finance," collective ritual, and communal cemeteries (Blanton et al. 1996:7). Trubitt (2000) uses this perspective to explain a shift from corporate patterns to network patterns at Cahokia. Also, Peregrine (2001) views unilineal descent as a corporate strategy by elites to obtain and maintain power. Blanton et al (1996:7) stress that the "corporate-network" approach is not meant to characterize societies; but rather, elite strategies that may change from one to another in time and space.

Curet and Oliver (1998) apply this theoretical perspective to explain the development of Taíno chiefdoms in Puerto Rico. They argue that plaza-associated communal cemeteries and large houses surrounding the central plazas at Saladoid settlements reflect "extended descent groups" acting as relatively egalitarian and corporate resource-controlling groups. However, a shift at the beginning of the Ostionoid periods to burial placement in domestic contexts and smaller nuclear family-sized houses during the emergence of social stratification is argued to represent the gradual "dismantling" of kinship relations and communal institutions by the emerging elite (Curet and Oliver 1998). They conclude that chiefs were able to "dismantle" communal kinship relations through a legitimizing ideology that monopolized descent relations with ancestors. According to this view, kinship relations structuring communal control over resources prevent the emergence of stratification:

> At the same time that power is being established ideologically, the emerging elite has to gain control and access to information and materials that can support many of its enterprises and consolidate support from the commoners. The dismantling or neutralization of the extended kin group (which probably also functioned as a corporate group) by the emerging elite is a necessary step to ensure control over basic resources and status, to eliminate possible competition, and to remove any possible mechanism of communality. Our argument is related to Upham's (1990) contention that 'the evolution of power relations in small-scale societies occurs when decision-making becomes linked to the use and possession of basic resources' and that this 'can only occur when relationships and institutions are disembedded from the kinship networks that prevail in many pre-state societies.' This change can create and enhance the profound inequalities that are characteristic of stratified societies. [Curet and Oliver 1998:220]

In a similar view, Siegel (1999) argues that individuals (chiefs and shamans among the Taíno) gained power by controlling the rituals and ceremonial spaces that maintain and reproduce society. Siegel (1999) also views Saladoid settlements as reflecting relatively egalitarian social organization and that ideological control by chiefs and shamans over cosmology and resources occurred in the Ostionoid periods. However, Siegel (1999:217) argues that Curet and Oliver (1998) overgeneralize on shifting burial practices. Siegel illustrates this point by demonstrating regional settlement hierarchies whereby mid-sized settlements like Maisabel, Puerto Rico maintained communal plaza cemeteries and larger settlements had centrally located elite residences with more formally constructed, larger ballcourt/plaza spaces. Siegel (1999) concludes that chiefs and shamans used a "corporate" strategy to reinforce group solidarity through ceremony in addition to a "network" strategy whereby status distinctions were re-affirmed in exclusionary exchanges and rituals.

Problems with "Corporate-Network" Theory

Blanton et al's (1996) original formulation of corporate-network theory relied on selective ethnographic observations, which were not tested cross-culturally. Elsewhere (Ensor, in press c), I examine recent archaeological theory on corporate and network strategies to form multiple hypotheses on how each relates to social stratification: that corporate and network strategies occur with all levels of stratification, that corporate strategies promote egalitarianism and network strategies promote stratification, and that both corporate strategies by commoners and network strategies by leaders can coexist. Ethnographic data on 26 aboriginal California societies were used to test the hypotheses. Each of the hypotheses based on recent literature was disconfirmed. Instead, these data indicated strong correlations between corporate strategies and complex chiefdoms (where a chiefly lineage has power over settlements throughout a region) and between network strategies and simple chiefdoms (where chiefs have power only over their own village). A quick glance at tables 3-2, 3-3, and 3-4 also suggests a strong correlation between societies emphasizing unilineal descent (Crow and Omaha kinship in these examples) with formal community patterns (i.e., corporate organization) and exogamous group or settlement ranking. Additional support for the view that corporate organization facilitates ranking and social stratification can be found in the Northwest Coast region. For example, with the exception of their patrilineal leaders, the Kwakiutl and Bella Coola practice bilateral descent and individuals pick and choose which "houses" they affiliate with (i.e., network strategies) (Rosman and Rubel 1971: 194-196). Because "house" ranking changes generationally, however, the social hierarchy is not as institutionalized or as stable as among the Tsimshian who have a preference for matrilineal descent, matrilateral cross-cousin marriage preferences, and avunculocality (i.e., corporate strategies) (Rosman and Rubel 1971:10-33).

A second problem with corporate-network theories for nonstate societies involves the overemphasis of elites. That a few individuals, in the absence of class, can "manipulate," "mobilize," or "dismantle" for their personal ambitions the social relations of a much larger population (e.g., Curet 1996:114-115; Earle 2001; Hagstrum 2001:51-52; Peregrine 2001) assumes that nonleaders are incredibly passive. The elite-centered view developed in reaction to functionalist interpretations whereby leaders are viewed as managers (e.g., Byrd 1994). However, conflict perspectives view leaders as manipulating commoners for their own benefits (Curet 1996:114-115). This typical conflict perspective on hierarchy in chiefdoms focuses only on elite strategies, assuming that a few individuals can manipulate a larger passive population. That focus on chiefs ignores the most important relations for understanding stratification in chiefdoms. In nonclass societies, leaders' status inside and outside his or her descent group is dependent upon commoners' well-being and prestige. Leaders in nonclass societies do not appropriate for power, they reciprocate for power. Power, prestige, labor, and resources are given by commoners having their own ambitions.

Leadership in nonclass societies, particularly when viewed through ceremony and feasting, is both managerial and manipulative: the managerial duties of chiefs are the means by which power and prestige are obtained by both the group and its leadership. The two aspects cannot be separated because feasting and ritual are the means by which groups compete for marital alliances and are awarded prestige vis-a-vis other groups. In this way, management is seen through a conflict perspective. The managing leadership of a more successful group is given more prestige than a leadership that does not successfully fulfill these roles, which is why leadership requires substantial education and is often evaluated by the community or a council (even when the position is inherited).

In corporate chiefdoms, the emphasis on group solidarity occurs by maintaining unilineal kinship relations. Because the corporate exogamous settlements compete for rank, corporate ritual becomes the locus for intergroup competition in marital alliances. Corporate ritual, in turn, requires communal surplus from all households (often food processed by women) within the exogamous settlement, which is managed by leaders. From the individuals' standpoint, their social lives and surplus production are controlled by elders and leaders for the benefit of the corporate exogamous settlement. In return for this social control over their lives, individuals receive communal benefits in prestige, access to resources, and social security.

In societies with bilateral descent, cognatic kinship, and "houses," individuals may attempt to affiliate themselves with multiple households because household ranking changes through time. In the societies demonstrating network strategies, the negotiated descent, postmarital residence, and complex marriage alliances among commoners illustrate flexible strategies for individuals' status, which are antithetical to the social controls and surplus labor demands of larger collective groups. The fragmented base of the society also provides the condition under which patron-client relations are most likely to form in the absence of lineal descent-regulated relations and safety nets (e.g., managed communal "social security" and "insurance" against poverty). Individuals do not receive the benefits of membership in a larger corporate group, and patron-client relations are necessary for commoners to conduct important life rituals and to survive food crises (although the latter can be buffered by marriages emphasizing geographic distance for resources). This is also the condition under which leaders must be "ostentatious" or "aggrandizing." Because commoners do not follow restrictive marriage patterns, leadership status and group status are undermined by interfamily or inter-"house" competition within the local community. Furthermore, without institutionalized ranking within the settlement, it is difficult for ranking to occur between settlements.

The strength of elite-centered perspectives are that they present an important component to agency and strategy. However, by isolating elite strategies, and not considering the dynamics and strategies inherent in the encompassing poltical economic system, these models lack the processes and trajectories that structure strategies among both commoners and leaders. A marital alliance perspective may provide the dynamic social context whereby commoner and leadership strategies are embedded in political economy.

Crow-Omaha Marital Alliances, Political Economy, and Social Ranking

To understand ranking in Crow-Omaha societies, archaeologists must consider lineal descent. Lineage members are ranked by birth order from the lineage founders and lineages are ranked relative to one another by their leaders' geneaological distance to the founding lineages (either known or ideological ancestors) (Widmer 1994:131). Within a clan, the oldest lineage is the leading lineage. However, the leaders from each lineage are related to one another, which also means that both lineage leaders and nonleaders are ranked by geneaological distance within and among lineages. That is, social ranking of individuals cross-cuts lineages via descent, which differentiates chiefdoms from class-based societies where social status does not cross-cut descent groups (Widmer 1994:131). The descent relations within and among lineages within clans are therefore not something to overcome or "dismantle" by leaders (e.g., Curet and Oliver 1998); but rather, the very foundation for social ranking.

Resources and surplus production play an important role in maintaining this system of ranking. The founding lineages, the oldest, have access to the best resources (through first choice) and junior leaders and their lineage members therefore benefit by remaining with the leading lineage (Widmer 1994:140-141). Clan surplus provides food security and the means for hosting competitive ceremony and feasting among clans. By remaining in a clan, lineages benefit from the collective abilities of the clan to produce a surplus. The amount of surplus extracted or produced from resources is dependent upon the amount of labor each lineage can reproduce (Widmer 1994:140). That surplus from resources and labor benefits lineage leaders in addition to nonleading lineage members. Because clan size matters, the ability for clans to attract spouses is critical to chiefs, junior leaders, and all lineage members. As successful clans outgrow other clans, their leaders and nonleaders benefit from the higher status in relation to other clans. By maintaining the lineal descent relations and clan exogamy, the very basis for social rank is reproduced and provides the means for enhancing social ranking.

Due to a lack of prescribed marriage pools outside exogamous clans, clan ranking and survival is dependent upon attracting marriages. To attract marriages, each clan must demonstrate its ability to produce surplus from its resources through ceremonial competition. If the clan does not successfully compete for marriages, its survival is jeopardized. Therefore, the marriage rules reproduce social structure, surplus production, ceremonial organization, and competition.

Both commoners and leaders benefit from successful competition. Commoner's rely on successful management of clan resources by leaders. Clans that are successful in ceremonial competition attract more marriages from neighboring clans because their ceremonial leaders have successfully used clan resources and surplus in ceremonial competition. Individual commoners in successful clans have greater prestige vis-a-vis commoners in other clans. Because of the larger clan sizes resulting from successful competition (disproportionate clan growth) commoners in succesful clans also have a larger number of relatives from which to derive surplus for important life events including expensive exchanges that accompany marriages.

Clan leadership that is less successful at managing clan resources and surplus in competitive ceremony is conversely undermined by the decreased ability for its members to attract marriages, which can lead to negative population growth. Without successful leadership, commoners will have less prestige vis-a-vis other clans' commoners, will attract fewer marriages, will have fewer relatives and resources from which to derive surplus for important life ceremonies and exchanges that accompany marriages, and may ultimately lose their clan and its resources through negative population growth.

The political economy that is reproduced by Crow-Omaha marital alliances structures the strategies that leaders may use to accentuate their status. From the leadership perspective, aspiring individuals and their lineages cannot benefit from clan resources, labor, and surplus production without ensuring the maintenance of their clan's population. That is, without the successful leadership that ensures stability or positive growth in clan population, there is a reduction in the amount of resources, labor, and surplus for leaders to "manipulate" or "mobilize." Essentially, without successful management of clan resources and surplus that serves commoners' competitive interests, the leadership risks losing the very resources it hopes to use for promoting its own interests.

To establish social hierarchy in a Crow-Omaha political economy, leaders must not only build and maintain an elevated status within their own clan but must also compete with leaders from neighboring clans. Leaders are ranked according to clan rank. Additionally, leaders follow the same marriage rules as commoners and must draw upon relatives for surplus involved in their life ceremonies including exchanges accompanying marriages. These events require greater surplus than those of commoners because clan leaders are competing for rank vis-a-vis other leaders in their attempts to attract marital alliances with the other leading lineages. Leaders are therefore dependent on the success of the commoners for the very resources, labor, and surplus that they mobilize for self interest. For these reasons, leadership success and commoner success are interdependent in the political economy created by Crow-Omaha kinship and marital alliances.

The competitive strategies leading to disproportionate clan growth therefore facilitate the emergence of social hierarchy within clans in addition to ranking among clans. The more successful, larger clans continue to attract commoner marriages. This process expands the resources, labor, and surplus available to elevate commoners of successful clans above the ranking of commoners in less successful clans while at the same time elevating leading families in successful clans above the ranking of leading families in less successful clans.

As emphasized throughout the preceeding chapters, the process of disproportionate clan growth ultimately leads to a crisis in exogamy. To reiterate once more, in a political economy based on competitive surplus production and ceremony to attract marriages for the survival of clans (due to the lack of prescribed marriage pools) a crisis in exogamy is a crisis in political economy--a crisis in social reproduction. After the emergence of social ranking, a crisis in exogamy is a crisis in reproducing the social hierarchy. In resolving such crises, leaders from junior lineages within the larger, successful, and more internally stratified clans may finally find the opportunity to fission and lead their own clans. However, this option of fissioning to establish new clan settlements with lineage members may be dependent on the availability of resources. Once fissioning, the newly formed clans are less highly ranked than the clans they departed from and with whom members maintain marriage alliances, which may lead to complex chiefdoms (i.e., institutionalized ranking among settlements and among settlement leaders within a region) in the absence of warfare and subjugation (e.g., Widmer 1994:142-143).

Crow Kinship and Marital Alliances Among the Taíno

Historic documentary evidence and ethnohistoric interpretations favor an interpretation of Crow kinship system among the Taíno. Keegan and coworkers (Keegan 1992a, 1992b; Keegan and MacLachlan 1989; Keegan et.al. 1998) argue that the Taíno had matrilineal descent, matrilocality, and avunculocality among chiefs. Oviedo (1851:136) and Mártir (quoted in Guarch Delmonte 1974:38, Sued-Badillo 1979:6, and Wilson 1990:118) describes mens' and chief's preferred succession rights as first belonging to the oldest son of one of his wives, second to one of his brother's sons or daughters or to one of his sister's sons or daughters--the important relationship being with the chief's but not with wives. Anacaona's succession to the role of chief (and there were other women chiefs [Oviedo 1851; Sued-Badillo 1979:8; Wilson 1990:119) after her husband's (Caonabo's) death could indicate wife's succession (Sued-Badillo 1979:7). Alegría (1979) argues the references to women chiefs either was illusory or a product of the impact of war with Spaniards. However, Wilson (1990:119) suggests that Anacaona could have been taking control by acting for a young son, if she had one, or enabling her brother, the chief Beheccio, to expand his territory by taking advantage of Caonabo's death and the marital alliance. Either way, it is clear that there was a preference for matrilineal succession.

Commoners are suggested to have had variable residence patterns (Keegan and MacLachlan 1989). What is known about commoners is that they lived in extended families (Las Casas 1967:243). Patrilocality would be rare in matrilineal society because men would keep their daughters' productivity, and their inheritance, within the household. Oviedo (1851) went to great lengths to describe his disgust over how Taíno men often resided with the sisters and mothers of their wives, which also suggests matrilocality was common.

Clan organization also has been suggested in ethnohistorical literature. The raised agricultural *conucos* were on village owned lands (Moscoso 1981: 353) and Keegan (1997:112) claims there were clan rights to *conuco* fields. If so, there were matrilineal clan rights to access village lands. Similar relations might apply to hunting and fishing areas. Oviedo (1851:66) claimed that disputes over village fishing areas was one cause for war. Because clans rely on resources and labor for clan status, and leading lineages rely on their clans' resources and labor to maintain higher status within clans, the protection of village resources among the Taíno may indicate clans had their own settlements. If so, the settlements were exogamous. An additional possible line of evidence for clan villages and settlement exogamy is found in accounts of trading trips taken by men in small groups or in parties (Cassá 1974:108; Rouse 1992:17; Wilson 1990:59). Ferdinand Colón (cited in Wilson 1990:79-80) describes Taino men travelling with the Spanish as having freely entering and taking items from houses in other villages. Wilson (1990:80) suggests that this represented rights of lineage members in other villages. If so, the men may have had maternal clan relatives in the villages visited and therefore settlement exogamy combined with matrilocal postmarital residence.

Keegan and coworkers (Keegan 1992a, 1992b; Keegan and Maclachlan 1989; Keegan et.al. 1998) emphasize the political aspects of avunculocal residence among chiefs. After Ember (1974), avunculocality is viewed as developing in response to situations of internal warfare or men's fishing/long-distance exchange so that the women are under control of the absent or deceased mens' male kin. Chiefs could control marital alliances by controlling nieces, nephews, sons, and daughters (Keegan 1992a, 1992b; Keegan and Maclachlan 1989; Keegan et.al. 1998). Keegan and coworkers argue that avunculocality allows for the aggregation in proximity to the chief of a number of potential matrilineal successors seeking favor.

Polygyny was common among chiefs. Oviedo (1851:133) describes most men as having only one wife but that leaders often had multiple wives. The chief Behechio is described as having 30 wives (Oviedo 1851:133). Additionally, the polygynous families of the chiefs, combined with those of nephews, provided chiefs with a relatively large extended family household (which accounts for the large houses described by the Spaniards in their first encounters with the Taino). This also allows for the aggregation of a number of potential matrilineal successors seeking favor in proximity to the cacique.

Both avunculocality and polygyny may also have functioned as strategies to accumulate the labor of matrilineally related lineage members within the chiefs' households. Polygyny increases the numbers of wives within the lineage and can be considered a short-term strategy for increasing surplus production (Leacock 1978). Polygyny also increases the potential number of children born into the lineage, which can be seen as a long-term method for increasing the labor pool. With larger labor pools, the leading lineages would have more resources and more capacity for surplus production. Avunculocality would have increased the number of matrilineally related men, in this case leaders and potential successors who most likely had polygynous families, together within their natal settlements. In addition to the control over potential successors, this strategy would increase the number of men within the household as a short-term strategy to increase the chiefly lineages' populations for resources and surplus production (Widmer

1994:133). Once a few chiefly lineages use avunculocality, the potential for other chiefs to add daughters' husbands to their household is unrealized. This forces the other chiefly lineages to use avunculocality to successfully maintain or increase their lineages' resources and labor pool.

Although much of the ethnohistorical data are biased toward the more stratified chiefdoms of Española, the more abundant archaeological data from Puerto Rico can be used to illustrate how disproportionate growth through ceremonial competition in the Crow-Omaha system led to social ranking in the Caribbean. Based on survey data from the Maunabo Valley in southeastern Puerto Rico (Curet 1992), habitation sites during periods IIa (ca. 1900-1600 B.P.) and IIb (ca. 1600-1400 B.P.) tend to have one to few midden mounds adjacent to a plaza with cemeteries (Figure 6-1). The Maisabel site, located on the north central coast of Puerto Rico, is the most intensively excavated site having occupations dating to periods IIa and IIb (e.g., Siegel 1992; 1999). Maisabel is considered to be representative of Puerto Rican sites during these periods. The site is located on a coastal plain meeting a shoreline composed of reef rock (Siegel 1992:23). A mangrove swamp is immediately east of the swamp. Siegel (1992) conducted excavations at Maisabel to examine the use of space and ideology. His excavations indicate a ring model for the site: a cleared central cemetery and plaza space surrounded by refuse and five middens, two of which were trash mounds (Siegel 1992:372-374). The two mounds largely accumulated in periods IIa and IIb. Mound 1, 70 m in diameter and nearly 2 m high, was on the northwest edge of the cemetery. Mound 2, a smaller oblong feature 1.5 m in height, was located on the southwest side of the cemetery.

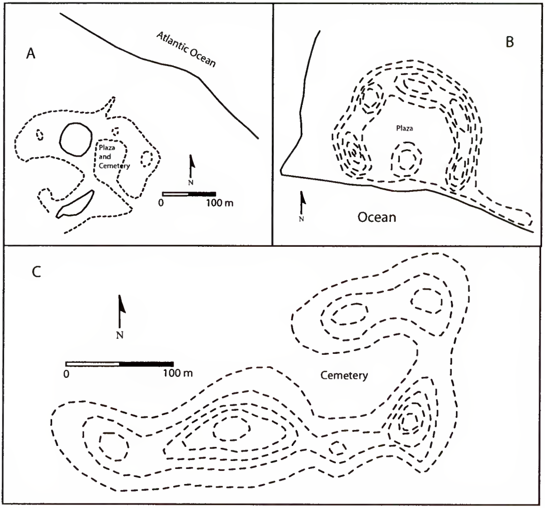


Figure 6-1. Community patterns at Period IIa - IIb settlements. A) Maisabel, Puerto Rico (redrawn from Siegel 1989: Figure 3), B) Punta Ostiones, Puerto Rico (redrawn from Oliver 1998: figura 3), and C) Punta Candelero, Puerto Rico (redrawn from Oliver 1998: figura 3).

Numerous categories of crafts were widely distributed around the Caribbean in the Saladoid periods. These include pottery, stone and shell celts, stone axes and adzes, grinding stones, smoothers and other coral items, metates, grinders, drills, pendats, perforated teeth, shell beads, drilled rectangular pieces of shell, beads of multiple stone sources, and amulets (Righter 1997:74). Many of the crafts from stone sources in the

Greater Antilles and tempers from the Greater Antilles have been found at sites in the Lesser Antilles indicating widespread maritime exchange (Watters 1997).

Stone, shell, coral, and bone symbolic craft items are abundant at Maisabel. According to Siegel (1992:106, 368) most of the adzes and celts were finely polished with no macroscopic evidence of use, also indicating nonutilitarian social functions. Craft production at Maisabel is indicated by abraders and drills. There were little differences in the distributions of craft items between the midden mounds at Maisabel (Table 6-1), which suggests that all of the families at that site had access to those craft items.

Several of the expectations for Crow-Omaha kinship and marriage systems are evident in the Saladoid periods. The community patterns of the period IIa and IIb sites--houses adjacent to or surrounding a central plaza and cemetery--are characteristic of settlements in Crow-Omaha societies. The central plazas and cemeteries indicate a collective organization in hosting ceremonies. This, in turn, suggests intersettlement ceremonial competition. I suggest that the small populations at the period IIa and IIb sites, combined with the hosting of ceremonies, indicates that the settlements were exogamous. The ubiquity of craft items at period IIa and IIb sites also conform with the expectations for Crow-Omaha marital alliances. The regional trade and the access to trade items by all members of settlements reflect the exchange of crafts and resources with multiple settlements by all members of each settlement.

Formally prepared stone-lined ballcourts and plaza spaces began to appear at Taíno settlements in the Ostionoid periods of the Greater Antilles when habitation areas more completely surrounded those central areas (Figure 6-2). In general, settlements on Hispañola, where Taíno society is suspected to have been more greatly stratified, have

Table 6-1. Tools and craft product distribution by excavated volume (m^3) reported for Maisabel trash mounds.

Depth	Abrader[1]	Drill[1]	Adze[1]	Celt[1]	Adze/Celt[1]	Amulet[1,3]	Bead[1,3]	Cemí[1]	Shell[1,2]	Bone[1,2]	Other[4]
						Mound 1					
0-0.40 m	0.2	0.0	0.2	0.2	5.0	0.7	59.3	0.4	12.5	0.4	6 modified coral
0.40-1.00 m	0.0	0.0	0.5	0.2	0.5	0.1	26.0	0.1	5.0	0.8	6 modified coral
1.00-1.50 m	0.0	0.0	0.0	0.0	0.1	0.0	3.6	0.1	1.4	0.0	
Total	0.2	0.0	0.7	0.4	5.6	0.8	88.9	0.6	18.9	1.2	
						Mound 2					
0-0.30 m	0.0	0.0	0.0	0.4	0.8	0.4	32.5	0.4	10.0	0.8	
0.30-0.80 m	0.0	0.3	0.4	0.8	1.8	0.0	91.5	0.5	19.5	2.5	4 modified coral, 1 bone spatula
0.80-1.20 m	0.3	0.0	0.0	0.0	0.0	0.0	10.6	0.0	0.3	0.0	
Total	0.3	0.3	0.4	1.2	2.6	0.4	134.6	0.9	29.8	3.3	

[1] Count/ m^3. [2] Worked [3] Stone, shell, and bone [4] Count

Data compiled from Siegel (1992).

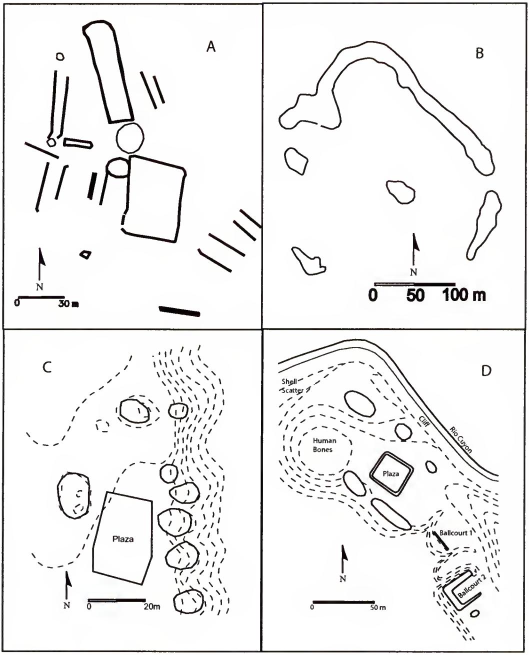


Figure 6-2. Community patterns at Period IIIa - IV settlements. A) Caguana, Puerto Rico (redrawn from Oliver 1998: Figura 4), B) En Bas Saline, Haiti (redrawn from Deagan 1987: Figure 3), C) G-15-01, Puerto Rico (redrawn from Oliver 1998: Figura 22), and D) Villón, Puerto Rico (redrawn from Alegría 1983: Figure 28).

been less studied than those on Puerto Rico. Ethnohistorical and archaeological surveys of villages indicate that large chiefs' houses and middens were located in the center of village plazas while those of nonchiefly lineages formed outer rings of plazas. One site that has been well described in Haiti is En Bas Saline (occupied between 750 and 480 B.P.). The results of Deagan's (1986, 1987, 1996) investigations at En Bas Saline conform to this model of Taíno site structure (Figure 6-2B). A massive structure, indicated by large postholes, and a trash mound were located within a plaza. Surrounding the plaza were segments of a ring mound with smaller structures indicated by postholes. The large central structure and adjacent mound are interpreted as the chiefs' large house and domestic refuse (Cusick 1989:8-10). The broken outer ring is interpreted as the domestic refuse and structures of nonchiefly households (Cusick, 1989).

Data compiled by Siegel (1999: Table 4, Figures 8-10) on the sizes of the central plaza and ballcourt areas at Puerto Rican settlements demonstrate a trend for disproportionate settlement growth in the Ostionoid periods (Table 6-2 and Figure 6-3). The five known settlements with plazas during period IIIa (ca. 1400-1100 BP) exhibit a three-tiered hierarchy in the sizes of central spaces. In the subsequent period IIIb (ca. 1100-800 BP), three of 16 settlements had central plazas and ballcourt spaces that were three to five times larger than the largest ones of period IIIa. The remaining period IIIb settlements with plazas and ballcourts were relatively small and several were abandoned by the end of this period. In the final prehispanic period, period IVa (800-500 BP), there were 20 settlements with plazas and ballcourts. Compared to the preceeding period, the largest plaza-ballcourt sites of period IVa were of similar size but fewer in number and many settlements had plaza and ballcourt spaces smaller than those in the

Table 6-2. Settlements in Puerto Rico with formal central plazas and ballcourts.

	Period IIIa	Period IIIb	Period IV
Site	Plaza/ballcourt area (m^2)	Plaza/ballcourt area (m^2)	Plaza/ballcourt area (m^2)
Caguana	-	5,200	5,200
Tibes	432	4,435	abandoned
Palo Hincado	-	4,239	4,239
Tierras Nuevas	-	-	2,472
Villón	1,620	1,620	1,620
La Zama	-	-	1,340
Delfín del Yagüez	-	-	1,292
La Vega	-	1,200	abandoned
Callejones	-	-	1014
Las Flores	1,000	1,000	abandoned
Toita	-	837	abandoned
Pellejas	-	596	abandoned
Quebrada Grande	-	595	595
El Bronce	400	400	abandoned
Sabana II	-	-	376
La Toje	-	357	357
Llanos Tuna	345	345	abandoned
Saltos	-	-	345
G-15-01	-	344	344
Trujillo Alto	-	-	262
Gerena	-	-	261
Vegas Arriba	-	-	226
Los Pastales	-	-	204
PO-39	-	183	abandoned

Table 6-2. Continued.

Site	Period IIIa Plaza/ballcourt area (m^2)	Period IIIb Plaza/ballcourt area (m^2)	Period IV Plaza/ballcourt area (m^2)
El Cordon	-	-	159
Río Arriba	-	-	129
Sabana Grande	-	65	65
F-3-01	-	37	abandoned
Cerro Hueco	-	-	26

Data compiled from Siegel (1992:226-227).

previous period. The central and southeastern portion of the island appear to have more polarized settlement size differences in period IV than in IIIb (Figure 6-4). The data presented by Siegel (1999) in Table 6-2 demonstrate disproportionate growth in settlement sizes and plaza/ballcourt sizes. As described above, Siegel (1999) argues that smaller settlements like Maisabel continued using central plazas for cemeteries in the Ostionoid era. Such "hamlets" (Siegel 1999:217) may represent a lower tier on the settlement hierarchy.

The continuation of the formal community patterns throughout the Saladoid periods suggests a continuation of Crow-Omaha kinship and marital alliances. The increased formality of, and investment in, the ballcourts and plazas located in the center of the settlements suggests that competitive ceremony may have intensified. The development of a marked settlement hierarchy associated with the more formally prepared ceremonial loci indicates that disproportionate growth was occurring, and I suggest that

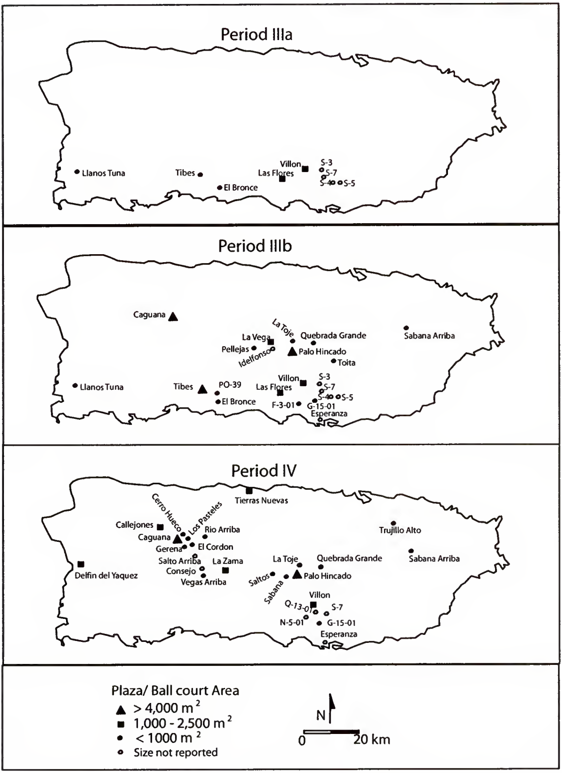


Figure 6-3. Distributions of Puerto Rican settlements with formal plaza/ ballcourts. Redrawn from Siegel 1999: figures 5-7.

the larger settlements, with the more elaborate ceremonial organization, were the more successful exogamous groups in attracting marriages.

Associated with the intensification of ballcourt and plaza-related activities on Puerto Rico and elswhere during the Ostionoid periods is the development of internal settlement ranking. As may be expected in theory, leadership would have accompanied the intensification of ceremony as a means to enhance individual status by enhancing the settlement status. The continuation of "corporate" ceremonial organization throughout the sequence suggests that successful leadership was interdependent with the successful growth of settlement populations.

Also evident in Table 6-2 is the abandonment of several smaller settlements with less formal central ceremonial features. These abandonments may be viewed as the result of population decreases until competitive exogamy could no longer be supported by the diminishing populations at those settlements. Unable to successfully compete in competitive ceremony, those settlements may have experienced a downward spiral in population and related resources and surplus until the survival of those groups was no longer possible within the context of a Crow-Omaha political economy.

Alongside the abandonments of some smaller settlements were several newly founded settlements in period IV. Most of the newly founded settlements were small and were clustered around the larger settlements. This is especially the case for the newly established settlements around the largest settlement, Caguana (Figure 6-3). I suggest that fissioning may have accounted for the establishment of the new settlements during period IV. The larger settlements, like Caguana and Palo Hincado may have begun to experience crises in exogamy as they outgrew other settlements and as some of those settlements experienced population declines and/or disappearance. Such crises would have entailed crises in the reproduction of the larger settlements' prominence and crises in the reproduction of elite power. The crises, in turn, could have provided opportunities for lineage leaders to fission off and establish their own settlements.

As stated in the introduction to this chapter, the Greater Antilles should cannot be considered homogeneous in terms of material culture and degrees of social hierarchy. Although complex chiefdoms are exhibited in the settlement hierarchy data from Puerto Rico not all areas of that island exhibit the same degrees of regional settlement ranking in all periods. That is, in certain periods, the regional settlement hierarchies in one area appear to have been more marked than in other periods. One possible explanation for a mosaic in settlement size hierarchies throughout the Greater Antilles is that at any one point in time, different regions may have experienced different stages in the Crow-Omaha disproportionate growth cycle. Another possible explanation is that competition was less intense in some areas than in others.

Summary and Limitations

In this chapter, I argued that the emphasis on elite strategies in "corporate-network" theory does not stand up to ethnographic testing, tends to ignore the larger political economies that structure elite agency, deemphasizes nonleaders' competition for status and resource security, and ignores the means by which kinship structures social hierarchy. A descent model for Crow and Omaha kinship and social ranking (e.g., Widmer 1994), in conjuction with ethnohistoric observations and the archaeological correlates described in Chapter 3 for Crow-Omaha societies, support others' (Keegan 1992a, 1992b; Keegan and MacLachlan 1989; Keegan et.al. 1998) claims that the Taíno had matrilineal

Crow kinship. The marital alliance perspective proposed in this dissertation is suggested to provide a political economic context for social hierarchy and chiefly strategies that are less developed in elite-focused models.

The diachronic archaeological data on settlement patterns and central plaza/ballcourt size hierarchies on Puerto Rico (Siegel 1999) exemplify the archaeological expectations for disproportionate growth in Crow-Omaha marriage systems. As argued in the case study on the Lower Mississippi Valley (Chapter 5), the data from Puerto Rico may indicate less successful attempts to attract marital alliances at exogamous settlements with smaller plaza/ballcourt spaces by way of ceremonial competition may have resulted in clan population declines and eventual settlement abandonments. The founding of new settlements occurred during periods when disproportionate settlement growth was most marked (periods IIIb and Iva), which may suggest fissioning from the larger, more ceremonially prominent clan settlements by junior lineages.

A major limitation in this chapter is the lack of data on settlement growth trends. In the Hohokam case study, I was able to include data on settlement growth for both the larger, more successful settlements and the smaller less successful settlements. Settlement history data for Taíno sites could test whether or not the smaller settlements that were abandoned had in fact declined gradually in population and whether or not the larger, more successful settlements gradually increased in population. Another limitation in this analysis is the lack of inclusion of settlements having central plaza/cemetery spaces but lacking the formally prepared plazas and ballcourts. Settlements without the formal plazas and ballcourts were claimed to represent a lower tier in the settlement hierarchy and are expected to have been more susceptible to population declines and abandonment in the process of disproportionate growth. The model for the Taíno may be weakened by not including this lesser known category of settlements in addition to the lack of settlement growth histories.

CHAPTER 7
CONCLUSIONS

Kinship structures political economic relations in non-state societies. However, due to the difficulties in interpreting lines of descent with archaeological data a marital alliance perspective is argued to offer categories of kinship that provide models more readily observable with archaeological data. Although lumping multiple categories of descent into fewer categories based on shared types of groups and marriage rules, regularities between alliance systems can be observed. The Crow-Omaha and complex alliance systems have distinct patterns in group composition and community patterns, ceremonial organization, surplus production and exchange, and ranking and demography.

Crow-Omaha alliances involve exogamous clans with no specified clan in which to find a spouse. The analysis of the nineteenth century Omaha in Chapter 2 demonstrates that these marriage rules were adhered to in nearly all marriages. With Crow-Omaha alliances, clans compete with other clans in ceremonial competition and exchange, through surplus production, to attract favored marriage alliances. Crow-Omaha societies may have either individual clan settlements (exogamous settlements) or large villages with multiple exogamous clans. In both cases, Crow-Omaha settlements correlate with formal community patterns, which include central plazas and/or ceremonial features in communal spaces. The survey of native North American cultures in Chapter 3 support these correlations. Exchange relations are expected to be among all clans, reflecting the marriage alliances. More ceremonially active clans should be the largest and should demonstrate continued positive growth because they attract more marital alliances. Less ceremonially active clans are expected to be smaller and to remain small or diminish in size through time.

Societies with complex alliances lack exogamous groups and have no marriage rules other than the family incest taboo. House societies involve complex alliances due to the similar lack of marriage rules, but are distinct in that the "house" is a formal estate that transcends generations. Settlements in complex systems involve family or "house" aggregates with no formal community patterns. Because there is no larger exogamous group organization, the family or "house" is independently responsible for its ceremonial affairs and associated surplus. Therefore, there is a general absence of communal spaces and structures for ceremonial activities. The survey of native North American cultures in Chapter 3 support these correlations. Among the more prestigious families or "houses," there is an emphasis on wealth to accentuate social distinction and attract marital alliances with other prestigious families or "houses." Because the individual families or "houses" are independently responsible for managing surplus and ceremonies for their own marriage alliances, leadership is based more on secular affairs. However, leaders do sponsor ceremonies for their settlements in ostentatious acts of legitimation, which also serve to competitively attract alliances with other leaders.

A major goal in political economic approaches is to explain social processes that may bring about social transformations. A marital alliance perspective also is argued to provide models for social processes that propell societies toward social transformations. The social process in the Crow-Omaha alliance system involves ceremonial prominence among clans and marriage behavior. As the analysis of clan demography illustrates in

Chapter 2, the more ceremonially prominent clans attract more marriages than do the less ceremonially prominent clans. Because the children of marriages belong to the clan of the father (in an Omaha system) or the mother (in a Crow system), the more ceremonially active clans grow disproportionately large by attracting more spouses. Meanwhile, the smaller less ceremonially prominent clans either remain the same size or gradually disappear due to negative population growth. Uninterrupted, this process leads to a "crisis in exogamy" for the large clans because there are too few potential spouses among the remaining clans for its members to marry. A crisis in exogamy for the larger clans may be dealt with by fissioning into smaller exogamous clans or by decisions to change marriage practices. Both result in a transformation of the society. By fissioning and maintaining Crow-Omaha marital alliances, the same cycle of disproportionate demographic growth can continue. In the Archaic period cultures of the Lower Mississippi Valley, the larger more ceremonially prominent settlements were argued to have resolved periodic crises in exogamy by fissioning into smaller exogamous groups that maintained Crow-Omaha alliances and the cycle was repeated. In contrast, the Hohokam were argued to have resolved crises in exogamy by relaxing rules on settlement exogamy, which resulted in a change to complex alliances. This, in turn, altered Hohokam social structure and community patterns, ceremonial organization, patterns in surplus production and exchange, and type of ranking resulting in the dramatic social transformation of the Late Formative-Classic period transition.

Although the model for Crow-Omaha disproportionate growth among clans predicts crises in exogamy, it does not predict what strategies societies took to resolve those crises. The two strategies illustrated among the Hohokam and the Archaic cultures of the Lower Mississippi Valley may suggest ecological conditioning factors particular to each. The Hohokam may have relaxed their rules on settlement exogamy, rather than fissioning into smaller exogamous settlements, because the irrigation canals and fields were in fixed locations across the landscape. Maintaining village membership was therefore important for access to resources. However, among the Archaic period hunting-gathering cultures of the Lower Mississippi Valley, who enjoyed less population density in relation to resources than did the Hohokam, fissioning and establishing smaller new exogamous settlements was less of a problem. Poverty Point is suggested to have followed a different path: fissioning into multiple exogamous groups that remained within the same settlement. This is similar to many of the historic aboriginal populations with Crow-Omaha kinship and alliance systems and the prehistoric site of Moundville.

The Taíno case study illustrates the importance of the political economy in structuring agency in an example of how complex chiefdoms formed in the Caribbean. The diachronic archaeological data on settlement patterns and central plaza/ballcourt size hierarchies exemplify the archaeological expectations for disproportionate growth in Crow-Omaha marriage systems. As argued in the case study on the Lower Mississippi Valley, the data from Puerto Rico may indicate less successful attempts to attract marital alliances at exogamous settlements with smaller plaza/ballcourt spaces by way of ceremonial competition may have resulted in clan population declines and eventual settlement abandonments. The founding of new settlements occurred during periods when disproportionate settlement growth was most marked, which may suggest fissioning from the larger, more ceremonially prominent clan settlements by junior lineages and the formation of regionalized complex chiefdoms.

Readers may find similarities between the two marital alliance models discussed and "corporate-network" theory (e.g., Blanton et al. 1996; Feinman et al. 2000:453-454). The formal community patterns and emphasis on collective ceremony that correlate with Crow-Omaha systems conform with theorized "corporate" strategies. However, the marital alliance perspective suggests that competition among exogamous groups that exchange members structures ceremonial organization whereas "corporate" models tend to emphasize kinship and ceremony as strategies by leaders (e.g., Peregrine 2001). Additionally, the model on Crow-Omaha relations suggests a particular process that may result in transformation. The complex alliances share with the theorized "network" strategies an emphasis on wealth and aggrandizing behavior by leaders and the fragmentation of kinship relations among the rest of society. One fundamental difference with "corporate-network" theory is that the two alliance models do not focus on elite strategies. Despite the differences, I believe marital alliance perspectives may complement corporate-network theory.

Some precautionary statements on the marital alliance perspective entertained in this dissertation are in order. I have proposed an alternative interpretive perspective on community patterns, ceremony, surplus production and exchange, ranking, and demography. Although following others' leads (most notably Rosman and Rubel 1971) on the interrelations of marital alliances with some of these themes, many of those interrelations have not received thorough evaluation other than the ethnographic correlations presented here and by Ensor (2002a, 2002d). The ethnographic data used to demonstrate the correlations is based on summarizing and normative statements by authors in the Handbook of Middle American Indians (Heizer 1978; DeMallie 2001a;

Ortiz 1979, 1983). Therefore, the archaeolgical correlations and expectations for the marital alliance models I have proposed here may require further scrutiny. Nevertheless, the patterns observed in the ethnographic societies do suggest some merit in the stated correlations. As stated at the end of Chapters 5 and 6, the Taíno and Archaic Lower Mississippi Valley case studies necessarily relied upon superficial data on community patterns, ceremony, nonutilitarian artifacts, and incomplete settlement patterns. Given the lack of large-scale site excavations in these regions to draw from, I am unable to assess how accurate my assumptions are for community patterns ceremonial organization, surplus production and exchange, and ranking. However, the arguments presented here may provide hypotheses for future testing when and if more detailed data are available.

I specifically chose to conduct an ethnographic survey of North American aboriginal societies rather than using one or few ethnographic societies from the regions of each case study. This decision was based on the observation that kinship and political economy change. For example, the Pima, who are the most likely descendants of the Hohokam, may have had patrilineal clans in the 1700s but shifted to a complex system in historic times (Bahr 1983:187). Therefore, I needed to look at well-documented Crow-Omaha and complex alliance systems to observe cross-cultural regularities in each. One possible limitation of the ethnographic survey is the reliance on secondary sources in the *Handbook of North American Indians*. Information compiled from the *Human Relations Area Files* was not used for this purpose due to a less descriptive format and because few North American societies are available. However, authors in the *Handbooks* typically described (rather than listing) the data sought, noted if there were contradictory arguments in the literature (in which case I excluded the society from analysis), described historical changes (if any), and often described adherence to marriage rules. These factors, and the strong correlations found, do suggest some merit to the archaeological correlates. Nevertheless, I encourage more testing of the correlates presented here.

The theoretical perspective taken in this dissertation is sometimes at odds with existing theories in archaeology. The approach predicts ranking and competition without always involving the internal social stratification typically theorized for regional settlement hierarchies. Environment and ecology are not causative factors. Crow-Omaha alliances are found in cultures inhabiting a great range of environments and using a great range of ecological strategies (e.g., tables 3-2, 3-3, 3-4).

One important factor left unelaborated in the dissertation is that spouse selection may involve access to resources. However, resource allocation should not be viewed independently from political economy and social processes. Ceremonies and accompanying feasts require resources and surplus production. Through ceremony and feasts, an exogamous group demonstrates its collective ability to produce surplus from resources. Therefore, even if decision-making in spouse selection is based on access to resources, we are still focusing on ceremony as a vehicle for attracting potential spouses. If a clan cannot attract spouses through resources and surplus in ceremony--and it must because there are no predetermined marriage pools--the clan will not reproduce itself and will gradually disappear through negative population growth.

Another factor to consider with disproportionate growth is potential stress on resources. As the successful exogamous groups grow larger, they may also find themselves with a “crisis in resource allocation.” Fissioning or restructuring may also provide solutions to situations in which there is not enough food, or just surplus, for all lineages within the large clans. However, it is important to remind the reader that the tendency for disproportionate growth in Crow-Omaha alliance systems sets the stage for such crises in resources in addition to crises in exogamy. Finally, power relations may influence decisions to fission or restructure marital alliances: once the large clans reach crises in exogamy and in resource allocation, lineage leaders may take advantage of the situation to fission and lead their own exogamous groups or to compete amongst each other for control over resources. The particular ecological contexts and the political strategies taken can result in different outcomes from the same social process.

Although it is not unusual to suggest that surplus for feasts, moundbuilding, and nonutilitarian artifact production are associated with groups competing for prestige (e.g., Blitz 1993:80), I explicitly link the existence of such competition to certain types of marriage systems. Nevertheless, it may be time to invite new theories with different perspectives in order to explain patterns, processes, and transformations that have eluded the expectations of traditional perspectives. Some of the advantages of a marital alliance approach are that they place emphasis on the ethnographically observed reasons on why and how groups come together and trade, produce surplus, and are ranked. The models may require further testing with larger samples and the archaeological correlates deserve more scrutiny. Nevertheless, I hope this dissertation offers some insight into non-state political economies and inspires more consideration of the importance of marital alliance systems for explaining social patterns, processes, and transformations in archaeological societies.

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BIOGRAPHICAL SKETCH

Bradley E. Ensor received his B.A. in Anthropology from Arizona State University in 1991 and his M. A. in Anthropology from Louisiana State University in 1994. His M. A. thesis examined the correlations between the technological properties and the morphologies of Postclassic Maya pottery from Belize. During and between degree programs, he worked on over 120 archaeological projects and field-directed several large-scale projects in Arizona and Florida. He has researched and published on archaeology in Mesoamerica, the U. S. Southwest, and the U. S. Southeast, in addition to Native North American ethnohistory. While working toward his degree at the University of Florida he was Adjunct Professor of Anthropology at Flagler College (St. Augustine, FL) and at Rollins College (Winter Park, FL).

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

William F. Keegan, Chair
Professor of Anthropology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

John H. Moore

John H. Moore
Professor of Anthropology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Kenneth Sassaman
Assistant Professor of Anthropology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Murdo J. Macleod

Murdo J. Macleod
Graduate Research Professor of
History

This dissertation was submitted to the Graduate Faculty of the Department of Anthropology in the College of Liberal Arts and Sciences and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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